

COUNTY BOROUGH



OF SOUTHPORT.

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# REPORT

UPON THE

Health and Sanitary Condition

OF THE

County Borough of Southport

For the Year 1937.



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## THE HEALTH COMMITTEE.

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THE WORSHIPFUL THE MAYOR  
(Councillor F. Whittaker, J.P.).

*Chairman* : Councillor J. G. Wilkinson, J.P.

*Vice-Chairman* : Councillor A. E. MERCY, J.P.

Ald. C. AVELING, J.P.

Coun. A. HUGHES.

Ald. J. R. BILLINGTON.

Coun. Mrs. LEIGH.

Ald. A. TOMLINSON, J.P.

Coun. Dr. E. W. LEWIS, J.P.

Coun. H. W. BARBER, J.P.

Coun. WM. MORRIS.

Coun. P. CARTER.

Coun. F. W. REDDAWAY.

Coun. J. H. DRAYCOTT.

Coun. C. ROTHWELL.

Coun. H. J. DREWITT.

Coun. J. F. SCOTT.

### STAFF OF THE PUBLIC HEALTH DEPARTMENT.

Medical Officer of Health, School Medical Officer, Tuberculosis Officer and Medical Officer of Corporation Hospitals	W. E. FitzGerald, M.C., M.B., Ch.B., D.P.H., Barrister-at-Law.
Deputy do. do. do.	W. D. Hood, M.B., Ch.B., D.P.H.
Assistant do. do. do.	Bertha M. Butters, M.A., M.B., Ch.B., D.P.H.
DENTAL STAFF—J. H. Highton, L.D.S., W. Martland, L.D.S., R. Sanderson ( <i>Dental Mechanic</i> ) Miss H. Rimmer and Mrs. Brown ( <i>Dental Attendants</i> ).	
SANITARY INSPECTORS—K. Aspinwall, a.b., <i>Chief Sanitary Inspector</i> , P. Wright, a.b., S. J. Wilde, a.b., G. Hadley, a.b., D. Wood, a.b., <i>Food Inspector</i> , J. Buckley, a., and W. Vickers, a.	
CLERICAL STAFF—H. R. Rees, B.A. (Admin)., A.C.I.S., <i>Chief Clerk and Vaccination Officer</i> , H. Griffiths, Miss L. Taylor, Miss A. Topping, Miss M. K. Singleton, Miss K. M. Welsh and Miss M. Broomhead.	
HEALTH VISITORS—Miss V. M. Willder, a.c.d.e., <i>Chief Health Visitor and Supervisor of Midwives</i> , Miss M. Lewis, c.d.e., Miss E. Palmer, c.d.e., Miss A. Probert, c.d.e., Miss G. M. Shenton, c.d.e., Miss D. Selby, c.d.e., Miss A. Dunn, d.e., Mrs. E. Dearden, Mrs. E. Whelan, c.d.e. and Mrs. Capel, e.	
MIDWIVES—B. Hosker, d., M. Lawrance, d., E. McGill, d., M. Pitman, d.	
Blind Welfare Visitor	Miss Skidmore.
Infectious Disease Enquiry Officer	K. Magee.
Ambulance Driver	J. Watkinson.
Caretaker, 2, Church Street	T. Wright.
Caretaker, Abattoirs	H. Jackson.
Baths' Superintendent	S. Hodson.

#### NOTES RE QUALIFICATIONS.

- (a) Holds the Sanitary Inspector's Certificate.
- (b) Holds the Meat and Foods Certificate.
- (c) Holds the Health Visitor's Certificate.
- (d) State Certified Midwife.
- (e) State Registered Nurse.

#### NEW HALL HOSPITAL.

Matron	Miss E. Fletcher.
Home Sister	Miss R. Robinson.
Night Sister	Miss D. Biggs.
Sanatorium Sister	Miss A. Daley.

#### FLEETWOOD ROAD HOSPITAL.

Medical Officer	D. K. MacDougall, M.B., Ch.B.
Matron	Miss M. McNamee.
Sister	Miss B. G. Minor.

#### V.D. HOSPITAL.

Medical Officer	H. Bardsley, M.R.C.S., L.R.C.P.
Sister-in-Charge	Miss M. L. J. Foster.

#### CHRISTIANA HARTLEY MATERNITY HOSPITAL.

Medical Officer	N. E. Laurence, M.R.C.S., L.R.C.P., F.R.C.S.(Eng.).
Sister-in-Charge	Miss E. Graham.

#### LINCOLN HOUSE CHILDREN'S HOME.

Matron	Miss F. Oliver.
Assistant Matron	Miss C. M. Redfearn.

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Consultant Tuberculosis Officer	John Hay, M.D., F.R.C.P.
Nose and Throat Specialist	C. Yorke, M.D., F.R.C.S.(Eng.).
Hon. Dental Surgeon (New Hall)	W. A. Findlay, Junr., L.D.S.
Public Vaccinators	R. Haddock, M.A., M.B., Ch.B. and G. G. Rigby, L.M.S., S.A. (Lond.).
Veterinary Surgeon	H. G. Hewetson, M.R.C.V.S.

## TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

SIR, LADIES AND GENTLEMEN,

I have pleasure in submitting my Report for the year 1937.

It will be noted that the Registrar-General's figure for the population of the County Borough shows a decrease of 320. The possible stabilisation of the population was pointed out in my Report for 1936 and although the Registrar's figure must be accepted for the purpose of calculating the vital statistics of the town, there is considerable doubt as to whether this further decrease is justifiable. Based on this figure, the birth-rate was slightly higher than the two previous years. The number of deaths occurring amongst residents in the town numbered 1,266, giving a rate corrected for age and sex of 13·3 per 1,000 population. A summary of the principal causes of death appears on page 11, and it will be noted that deaths recorded as due to heart disease show an apparent increase on previous years, but this is mainly due to an alteration in the system of classification.

For the first time the "short list" of causes of deaths has been used for classification, and supersedes the list used in former years. Table V. based on this system of classification appears on page 18. The alteration has two advantages, one being that it is the system adopted elsewhere in England and Wales, and two, that it is more informative.

Changes in the Staff of the Department are recorded on page 20. For many years the Chief Sanitary Inspector combined the duties appertaining to this post with those of Chief Clerk to the Department, but with the increase in public health work especially from the administrative side, it became evident that someone with the necessary qualifications and experience for the work of Chief Clerk should be obtained.

The work of Chief Sanitary Inspector is onerous enough, particularly in a health resort, where a high standard of sanitation is required, but with the increase of administrative work over recent years, the tendency was for the Chief Sanitary Inspector to become Chief Clerk, to the detriment of his statutory duties.

The committee consequently decided that a Chief Clerk should be appointed, and since his appointment in April, 1937, a considerable amount of reorganisation of the Department's work has been undertaken. This has included improved methods of record keeping, filing, and the collection of data for reports. In addition, a comprehensive system of accounting has been developed with the co-operation of the Borough Treasurer and his Staff. It was evident that the old system had to be altered and the smooth working of the department has been greatly facilitated by the changes effected.

Although it did not occur in the year under review, I have thought fit to insert on page 59 a description of the scheme for free immunisation of children by their own medical practitioners.

This scheme which the Committee passed recently is of such importance that it merited inclusion in this Report. Up to the moment, the majority of doctors in the town have agreed to carry out the work and it is hoped that with their assistance the risk of any serious outbreak will be eliminated. Southport has been remarkably free from this disease for many years, but it would be unwise to imagine that this freedom will necessarily continue unless every effort is made to make our children safe from infection.

The past year has seen many advances and many changes in the work of the department, and I wish to express my sincere appreciation for the help and support of the Committee which has always been so readily forthcoming.

I am,

Yours faithfully,

W. E. FITZGERALD.

# MEDICAL OFFICER OF HEALTH'S ANNUAL REPORT, 1937.

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Part I.

STATISTICAL MEMORANDUM

AND

VITAL STATISTICS.

## STATISTICAL MEMORANDUM.

Area of Borough (including Foreshore, 18,333 acres)	9,426 acres
Population (1931 Census)	78,927
Do. (Estimated by the Registrar-General), middle of 1937	78,960
Density of Population	8·38 per acre
Number of inhabited houses, 31st December, 1937	22,772
Rateable Value, 1st April, 1937	£941,555
Sum represented by a Penny Rate	£3,655
Number of births registered	837
Legitimate	787
Illegitimate	50
Nett birth rate (per, 1,000 of the population)	10·6
Average birth rate, preceding ten years	10·7
Number of infant deaths (under one year)	56
Infant Mortality Rate (per 1,000 births)	67
Legitimate	64
Illegitimate	120
Average Infantile Mortality Rate, preceding ten years	62
Number of deaths registered	1,266
Crude death rate (per 1,000 of the population)	16·03
Average crude death rate, preceding ten years	14·4
Corrected death rate (per 1,000 of the population)	13·3
Number of deaths from tuberculosis (all forms)	41
Tuberculosis death rate (per 1,000 of the population)	0·52
Average tuberculosis death rate (preceding ten years)	0·595
Number of deaths from Zymotic disease	16
Death rate from Zymotic diseases (per 1,000 of the population)	0·20
Average death rate from Zymotic diseases (preceding ten years)	0·16
Number of women dying in, or in consequence of, child-birth—	
From Sepsis	2
From other causes	2
Number of persons in receipt of out-door relief—	
(a) On 1st January, 1938	1,139
(b) On 1st January, 1937	1,410
Total grants in the way of Poor Law Relief, 31/3/37	£29,912
Total grants in the way of Poor Law Relief, 31/3/36	£31,122
Number of blind persons on the register (31st December, 1937)	157
Average domestic consumption of water per head, per day	24·1 galls.
Total consumption of water per head, per day	30·1 galls.
Rainfall during 1937	25·00
Hours of Sunshine during 1937	1,344
Number of new houses erected and completed during 1937	385
Average number of new houses erected during the preceding ten years	338

## VITAL STATISTICS.

### POPULATION.

The population at the census of 1921 was 71,900, and at the census of 1931, 78,927, showing an increase of 7,027 in the decennium. The Registrar-General's estimate of the population for the middle of 1937 is 78,960, being 320 persons less than the estimate for the middle of 1936.

### BIRTH RATE.

The total number of births registered in the borough during 1937 was 914, being 34 more than last year. 100 of the total number of births were those of infants whose parents were domiciled outside the borough and 23 infants were born outside the borough, the parents being residents of Southport. Allowing for the necessary correction, the "local" births numbered 837 (33 more than last year). Of these, 388 were males and 449 females. The birth rate for the year was 10·6 per 1,000 persons living.

Of the "local" births, 789 were legitimate and 56 illegitimate; i.e., 6% were illegitimate. The average for the previous ten years is 6·4%.

The number of still-births registered was 35. That is to say that out of every 100 live-and still-births there were four still-births. There were no still-births in the illegitimate group.

### DEATH RATE.

The number of deaths registered in the town was 1,124. Of these 63 were deaths of persons ordinarily resident elsewhere, and these are excluded, leaving 1,061 deaths of Southport residents which have occurred in the borough. 205 residents during the year died outside the borough, and including these the deaths of Southport residents during the year numbered 1,266. Of these, 566 were males and 700 females.

The gross death rate (after exclusions and inclusions) ..... 16·03

The rate corrected for age and sex ..... 13·3

The following table gives the ratio of deaths in each of the various age groups to the total deaths (100).

### RATIO OF DEATHS IN EACH OF THE VARIOUS AGE GROUPS TO TOTAL DEATHS (100).

	Under 1	1-2	2-5	5-15	15-25	25-45	45-65	65 and Upwards
1931	4·8	0·5	1·0	1·7	2·5	9·0	25·2	55·3
1932	3·7	0·7	1·3	0·7	2·3	7·2	27·3	56·8
1933	3·7	0·7	0·8	0·8	1·6	9·7	24·6	58·1
1934	3·7	1·0	1·0	1·4	1·9	6·9	26·9	57·2
1935	4·5	0·5	0·2	1·0	2·0	7·2	24·9	59·8
1936	3·45	0·34	0·76	1·18	1·35	7·23	26·66	59·03
1937	4·42	0·39	0·63	1·34	1·26	5·45	27·09	59·42

32·94% of deaths occurred at the age of 75 years and over.

**PRINCIPAL CAUSES OF DEATH.**

Tuberculosis (all forms)	41
Cerebral Haemorrhage	81
Cancer	168
Heart Disease	315
Respiratory Diseases	109
Acute and Chronic Nephritis	56
Violence, including suicide	43
Senility	67

Forty-three deaths were recorded as due to violence. There were 14 deaths from suicide, an increase of one on the previous year. Excluding suicide there were 29 deaths from violence and 22 of these were due to the following causes :—

Found drowned 3	Motor Accidents 8	Falls 11
-----------------	-------------------	----------

**ZYMOTIC DEATH RATE.**

Diphtheria (6)	Typhoid (1)	Diarrhoea (5)
Scarlet Fever (1)	Measles (2)	Whooping Cough (1)
Total Deaths (16).		Rate per 1,000, 0.20.

**INFANTILE MORTALITY RATE.**

Total deaths 56.	Rate per 1,000 births	67
Legitimate 50.	Do.	64
Illegitimate 6.	Do.	120

TABLE 1. VITAL STATISTICS OF WHOLE DISTRICT DURING 1937 AND PREVIOUS YEARS.  
COUNTY BOROUGH OF SOUTHPORT.

YEAR	Population estimated to Middle of each year	BIRTHS			TOTAL DEATHS REGISTERED IN DISTRICT. Z.		TRANSFERABLE DEATHS a		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncor-rected Number 3	Nett.		Number x 6	Rate 7	of Non-residents regist'd in the District 8	of Resi-dents not regist'd in the District 9	Under 1 year of age		At all ages.	
			Number 4	Rate 5					Number x 10	Rate per 1,000 Nett Births 11	Number x 12	Rate 13
1922	72,020	1023	1028	14.27	940	13.05	79	114	58	56	975	13.54
1923	72,410	1012	996	13.76	940	12.98	69	106	65	65	977	13.49
1924	73,650	952	934	12.90	977	13.24	78	109	59	63	1006	13.66
1925	74,260	988	973	13.10	880	11.85	56	113	59	61	937	12.62
1926	77,970	942	928	11.90	878	11.26	72	124	58	62	930	11.93
1927	78,670	973	958	12.18	1002	12.64	64	130	46	48	1067	13.56
1928	79,290	959	957	11.54	1002	12.64	72	132	69	75	1044	13.17
1929	80,040	929	896	11.07	1073	13.41	86	179	65	73	1146	14.32
1930	80,700	921	890	11.03	1035	12.82	72	165	66	74	1101	13.64
1931	77,280	877	824	10.66	1062	13.74	67	185	56	68	1157	14.97
1932	78,770	915	886	11.25	1019	12.94	68	150	40	45	1079	13.70
1933	78,980	805	769	9.51	1128	14.28	73	157	44	57	1189	15.05
1934	79,100	918	860	10.87	998	12.62	61	153	40	46	1070	13.53
1935	79,300	872	808	10.19	1104	13.92	63	143	52	64	1161	14.64
1936	79,280	880	804	10.14	1105	13.94	81	182	41	51	1189	15.00
1937	78,960	914	837	10.60	1143	14.48	63	205	56	67	1266	16.03

Z Including deaths in the Borough Isolation Hospital in the West Lancashire Rural District.

x In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the district, military deaths excepted.

In Column 12 is entered the number in Column 6, corrected by subtraction of the number in Column 8 and by the addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

(a) "Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales die in a district other than that in which they resided.

The following Special Cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses and nursing homes (but not almshouses) have been regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission the death is not transferable.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement have been referred to the district of fixed or usual residence of the parent.

(3) Deaths from violence have been referred (a) to the district of residence, under the general rule ; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known ; (c) failing this, to the district where the death occurred, if known ; and (d) failing this, to the district where the body was found.

	Census		
	1911	1921	1931
Total population at all ages .....	69,643	71,900	78,927
Number of inhabited houses .....	15,676	16,314	20,388
Average number of persons per house .....	4.44	4.41	3.87
Area of District in acres (land and inland water) .....	9,426	9,426	9,426

TABLE II.

Showing the total number of Cases of Infectious Disease notified in the Borough, and the Deaths resulting therefrom, during the last 10 years (1928—1937). It includes the Deaths which occurred both in the Borough, and in the Borough Infectious Diseases Hospital (outside the Borough).

	NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED											DEATHS FROM INFECTIOUS DISEASE											Case Mortality (of all cases) in Borough Hosp. for 10 years 1928 to 1937
	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Total Cases for 10 years 1928 to 1937	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Total Deaths during 10 years 1928 to 1937	
Scarlet Fever .....	123	234	269	166	120	131	184	84	265	209	1785	—	2	3	—	—	—	—	—	1	1	7	0.39%
Small-pox .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria .....	71	168	205	178	95	42	22	72	14	81	948	1	3	6	6	3	1	1	5	—	6	32	3.38%
Typhus .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid Fever .....	1	1	2	2	5	—	1	1	—	—	13	—	1	2	—	—	—	—	—	—	1	4	30.77%
Para-Typhoid Fever .....	5	2	1	11	4	1	1	1	1	—	27	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas .....	29	54	49	32	23	34	27	24	21	26	319	1	1	1	—	—	1	1	—	1	—	6	1.88%
Puerperal Fever .....	—	3	4	1	3	2	—	1	2	3	19	—	—	—	1	1	—	—	1	1	2	6	31.58%
Puerperal Pyrexia .....	6	6	11	11	14	4	7	6	4	7	76	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Meningitis .....	1	—	1	—	—	1	—	—	—	—	3	—	—	1	—	—	1	—	1	—	—	3	100.00%
Poliomyelitis .....	1	4	—	1	3	1	—	1	—	—	11	—	—	—	—	1	—	—	—	—	—	1	9.09%
Pulmonary Tuberculosis .....	82	59	69	55	41	60	43	43	47	57	556	39	44	60	40	33	40	36	31	33	33	389	69.96%
Other Forms of Tuberculosis .....	33	27	24	32	19	30	36	28	28	13	270	10	7	9	9	7	9	8	4	8	8	79	29.26%
Ophthalmia Neonatorum .....	3	12	8	6	2	3	3	1	3	5	46	—	—	—	—	—	—	—	—	—	—	—	—
Chicken Pox* .....	434	430	295	453	405	291	300	446	406	300	3760	—	—	—	—	—	—	—	—	—	—	—	—
Measles* .....	674	581	889	305	355	346	1105	142	327	1148	5872	2	3	2	—	1	3	8	—	1	2	22	0.37%
German Measles .....	27	50	30	74	144	28	69	15	112	93	642	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough* .....	310	149	280	287	277	165	136	166	460	134	2364	9	1	3	4	1	2	—	—	5	1	26	1.09%

The following additional notifications were received during 1937 :—Pneumonia (all forms) 118; Encephalitis Lethargica 1.

\*Chicken-pox, Measles and Whooping Cough were made compulsorily notifiable in Southport in May, 1902, and Cerebro-Spinal Meningitis, Poliomyelitis and Ophthalmia Neonatorum in February, 1912.

Measles, German Measles and Whooping Cough :—Only the first case in a house in two months is notifiable.

TABLE IIIa.—VITAL STATISTICS.

Year	Popu- lation	DEATHS												Rate per 1,000 Popu- lation	Rate per 1,000 Popu- lation	Other Forms T.B.	Rate per 1,000 Popu- lation	Zymotic Diseases	Rate per 1,000 Popu- lation
		Male	Female	Total	Rate per 1,000 Popu- lation	Cor- rected for Age and Sex	Under One Year	Rate per 1,000 Births	Legiti- mate	Rate per 1,000 Births	Illegiti- mate	Rate per 1,000 Births	Pulm'ry Tuber- culosis	Rate per 1,000 Popu- lation	Rate per 1,000 Popu- lation	Other Forms T.B.	Rate per 1,000 Popu- lation	Zymotic Diseases	Rate per 1,000 Popu- lation
1925	74260	435	502	937	12.62	10.70	59	61	54	59	5	89	44	0.59	0.13	10	0.13	11	0.14
1926	77970	434	496	930	11.93	10.12	58	62	52	60	6	92	36	0.46	0.10	8	0.10	18	0.23
1927	78670	496	571	1067	13.56	11.50	46	48	41	46	5	75	41	0.52	0.09	7	0.09	9	0.11
1928	79290	458	586	1044	13.17	11.17	69	75	61	71	8	140	39	0.49	0.13	10	0.13	16	0.20
1929	80040	533	613	1146	14.32	12.14	65	72	57	68	8	148	44	0.55	0.09	7	0.09	14	0.17
1930	80700	468	633	1101	13.64	11.56	66	74	52	63	14	222	60	0.74	0.11	9	0.11	19	0.24
1931	77280	510	647	1157	14.97	12.69	56	68	53	68	3	55	40	0.52	0.12	9	0.12	16	0.21
1932	78770	495	584	1079	13.70	11.62	40	45	35	42	5	79	33	0.42	0.09	7	0.09	8	0.10
1933	78980	517	672	1189	15.05	12.76	44	57	38	53	6	115	40	0.51	0.11	9	0.11	7	0.09
1934	79100	481	589	1070	13.53	11.23	40	46	37	45	3	79	38	0.48	0.11	9	0.11	11	0.14
1935	79300	500	661	1161	14.64	12.15	52	64	51	68	1	18	31	0.39	0.05	4	0.05	9	0.11
1936	79280	557	632	1189	15.00	12.45	41	51	37	49	4	68	33	0.42	0.10	8	0.10	9	0.11
1937	78960	566	700	1266	16.03	13.30	56	67	50	64	6	120	33	0.42	0.10	8	0.10	16	0.20

TABLE IIIb.  
BIRTHS AND STILLBIRTHS.

Year	Population	Males	Females	Total	Legiti- mate	Illegiti- mate	Rate per 1,000 Popu- lation	Still Births
1925	74260	499	474	973	917	56	13.10	—
1926	77970	465	463	928	863	65	11.90	—
1927	78670	480	478	958	891	67	12.18	—
1928	79290	458	457	915	858	57	11.54	35
1929	80040	470	426	896	842	54	11.07	45
1930	80700	464	426	890	827	63	11.03	45
1931	77280	403	421	824	769	55	10.66	42
1932	78770	450	436	886	823	63	11.25	63
1933	78980	390	379	769	717	52	9.74	24
1934	79100	477	383	860	822	38	10.87	45
1935	79300	426	382	808	754	54	10.19	41
1936	79280	412	392	804	745	59	10.14	34
1937	78960	388	449	837	787	50	10.60	35

TABLE IIIc.  
MATERNAL MORTALITY.

Year	No. of Live and Still Births	RATES PER 1,000 LIVE AND STILL BIRTHS					
		Sepsis		Other Causes		Total	
		No.	Rate	No.	Rate	No.	Rate
1925	973*	1	1.03	1	1.03	2	2.06
1926	928*	—	—	5	5.39	5	5.39
1927	958*	—	—	4	4.18	4	4.18
1928	950	—	—	2	2.11	2	2.11
1929	941	—	—	4	4.25	4	4.25
1930	935	3	3.20	7	7.49	10	10.69
1931	866	1	1.15	4	4.62	5	5.77
1932	949	1	1.06	6	6.32	7	7.38
1933	793	—	—	3	3.78	3	3.78
1934	905	—	—	3	3.31	3	3.31
1935	849	1	1.18	3	3.53	4	4.71
1936	838	1	1.19	2	2.39	3	3.58
1937	872	2	2.29	2	2.29	4	4.58

\*Live births only.

TABLE IV.—BIRTH-RATES, DEATH-RATES AND ANALYSIS OF MORTALITY IN THE YEAR 1937.

England and Wales—125 County Boroughs and Great Towns, and 148 Smaller Towns.

(Provisional figures, based on Weekly and Quarterly Returns).

	Rate per 1,000 total population		Annual Death-Rate per 1,000 Population									Rate per 1,000 Live Births	
	Live Births	Still-Births	All Causes	Typhoid and Paratyphoid Fevers	Small-pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Violence	Diarrhoea & Enteritis (under 2 years)	Total Deaths under 1 year
England and Wales	14.9	0.60	12.4	0.00	—	0.02	0.01	0.04	0.07	0.45	0.54	5.8	58
125 County Boroughs and Great Towns, including London	14.9	0.67	12.5	0.01	—	0.03	0.01	0.04	0.08	0.39	0.45	7.9	62
148 Smaller Towns (Estimated Resident Population 25,000 to 50,000 at Census, 1931)	15.3	0.64	11.9	0.00	—	0.02	0.01	0.03	0.05	0.42	0.42	3.2	55
London	13.3	0.54	12.3	0.00	—	0.01	0.01	0.06	0.05	0.38	0.51	12.0	60
Southport	10.6	0.44	16.03	0.01	—	0.03	0.01	0.01	0.08	0.48	0.54	5.9	67

The maternal mortality rates for England and Wales are as follows :				Puerperal		Total	
per 1,000 Live Births	.....	Sepsis		Others		Total	
per 1,000 Total Births	.....	0.97		2.26		3.23	
per 1,000 Live Births	.....	0.94		2.17		3.11	
per 1,000 Total Births	.....	2.39		2.39		4.78	
per 1,000 Live Births	.....	2.29		2.29		4.58	

TABLE V.

Causes of, and Ages at, Death during the Year 1937.

Causes of Death	Totals All Ages	Sex		Age Distribution										
		M.	F.	Under 1 year	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 up
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Typhoid and Paratyphoid Fevers	1	—	1	—	—	—	—	—	—	—	—	—	1	—
2. Measles	2	1	1	1	—	1	—	—	—	—	—	—	—	—
3. Scarlet Fever	1	—	1	—	—	—	1	—	—	—	—	—	—	—
4. Whooping Cough	1	—	1	1	—	—	—	—	—	—	—	—	—	—
5. Diphtheria	6	3	3	—	1	2	3	—	—	—	—	—	—	—
6. Influenza	38	14	24	—	—	—	2	—	3	2	5	9	7	10
7. Encephalitis Lethargica	1	1	—	—	—	—	—	—	—	—	—	—	1	—
8. Cerebro-spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Tuberculosis of Respiratory System	33	18	15	—	—	—	2	5	8	3	6	9	—	—
10. Other Tuberculous Diseases	8	4	4	—	2	1	1	1	1	—	1	1	—	—
11. Syphilis	1	1	—	—	—	—	—	—	—	—	1	—	—	—
12. General Paralysis of the Insane, Tabes Dorsalis	1	1	—	—	—	—	—	—	—	—	—	1	—	—
13. Cancer, Malignant Disease	168	67	101	—	—	—	—	1	—	3	16	40	62	46
14. Diabetes	27	11	16	1	—	—	—	—	—	—	2	3	10	11
15. Cerebral Haemorrhage, etc.	81	30	51	—	—	—	—	—	—	1	1	15	28	36
16. Heart Disease	315	140	175	—	—	—	1	1	1	7	29	63	91	122
17. Aneurysm	3	2	1	—	—	—	—	—	—	—	—	1	2	—
18. Other Circulatory Diseases	76	35	41	—	—	—	—	—	—	1	1	5	26	43
19. Bronchitis	45	23	22	—	—	—	—	—	1	2	4	4	13	21
20. Pneumonia (all forms)	45	29	16	7	1	—	1	1	1	2	6	8	10	8
21. Other Respiratory Diseases	19	10	9	—	—	—	—	—	1	1	4	5	4	4
22. Peptic Ulcer	7	6	1	—	—	—	—	—	1	2	1	2	1	—
23. Diarrhoea, etc. (under 2 years)	5	1	4	5	—	—	—	—	—	—	—	—	—	—
24. Appendicitis	11	8	3	—	—	—	—	2	—	—	4	5	—	—
25. Cirrhosis of Liver	3	—	3	—	—	—	—	—	—	—	—	—	2	1
26. Other Diseases of Liver, etc.	6	1	5	—	—	—	—	—	—	1	—	2	1	2
27. Other Digestive Diseases	26	12	14	—	—	1	—	1	1	1	5	4	8	5
28. Acute and Chronic Nephritis	56	30	26	—	—	—	—	1	—	—	10	10	19	16
29. Puerperal Sepsis	2	—	2	—	—	—	—	—	1	1	—	—	—	—
30. Other Puerperal Causes	2	—	2	—	—	—	—	—	1	1	—	—	—	—
31. Congenital Debility, Premature Birth, Malformations etc.	34	12	22	33	—	—	1	—	—	—	—	—	—	—
32. Senility	67	27	40	—	—	—	—	—	—	—	—	2	9	56
33. Suicide	14	11	3	—	—	—	—	2	2	—	3	2	3	2
34. Other Violence	29	12	17	—	—	—	1	—	1	—	3	5	8	11
35. Other Defined Diseases	123	53	70	8	1	3	4	1	11	7	22	22	24	20
36. Causes Ill-defined or Unknown	9	3	6	—	—	—	—	—	—	—	—	1	5	3
TOTALS	1266	566	700	56	5	8	17	16	34	35	124	219	335	417



**Part II.**

**GENERAL PROVISION OF HEALTH  
SERVICES FOR THE AREA.**

## GENERAL PROVISION OF HEALTH SERVICES FOR THE AREA.

### STAFF.

A full list of members of the Staff of the Public Health Department is set out in the beginning of this Report. Changes during the year were confined to the Sanitary Inspectors, the Chief Sanitary Inspector being replaced on retirement by Mr. K. Aspinwall, who had acted as Deputy for many years. Mr. G. Cayton, Sanitary Inspector, left this Authority to take up a similar appointment in Wakefield. A new post, that of Chief Clerk, was created and Mr. H. R. Rees commenced duties in that capacity in April, 1937.

### LABORATORY FACILITIES.

There were no changes under this heading during the year. Specimens for pathological examination are sent to the Laboratory at the Infirmary, and an arrangement exists with the Thompson-Yates Laboratories, Liverpool University for the bacteriological examination of supplies of milk and water. Samples of foods and drugs in respect of which a bacteriological report is required are also sent to the University; such samples for chemical analysis are sent to the City Analyst of Liverpool, who also holds the position of Public Analyst for Southport.

### AMBULANCE FACILITIES.

The Corporation has efficient ambulances for removal of infectious disease cases. Patients for admission to the Maternity Hospital are required to make their own arrangements, and the St. John's Ambulance is available for this purpose at a reasonable charge.

The ambulances for accident cases are controlled by the Police Department, and it is understood that the arrangements in this connection are complete and satisfactory.

### NURSING IN THE HOME.

This service has been provided by the local District Nursing Association. The value of the Association's co-operation with the Public Health Department has been suitably recognised by the Corporation in the form of a specific grant, totalling £150 per annum, which is to be paid from the 1st April, 1938.

### TREATMENT CENTRES AND CLINICS.

The following is a complete list of Centres and Clinics provided by the Corporation :—

#### INFANT WELFARE CENTRES.

Liverpool Road Centre, Methodist Schools.	Tuesday, 2 to 4 p.m.	Consultation, Advice, etc.
Crossens Centre, Rufford Road	Wednesday, 2 to 4 p.m.	do.
High Park Centre, 92, Poulton Road	Wednesday, 2 to 4 p.m.	do.
Hampton Road Centre, Hampton Road	Thursday, 2 to 4 p.m.	do.
Hoghton Street Centre, Baptist Schools, Hoghton Street	Friday, 2 to 4 p.m.	do.

### ANTE-NATAL CLINICS.

44, Houghton Street	Thursday, 9-30 to 12 noon	Consultation, Examination, Advice, etc.
Maternity Hospital, Curzon Road	Friday, 11 a.m. to 12-30 p.m.	Examination and Treatment

### TUBERCULOSIS.

Dispensary, 2, Church Street	Tuesday, 2 to 4 p.m.	Consultation.
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### VENEREAL DISEASES.

Pilkington Road	Daily. Men	Treatment
	Women	Treatment
do.	Monday and Thursday 6 to 7-30 (Men)	Consultation and Treatment
do.	Tuesday, 2 to 3-30 p.m. (Women)	Consultation and Treatment

### SKIN DISEASES.

Skin Department, Pilkington Road	Friday, 9 to 10 a.m. (Children only)	Consultation
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### SCHOOL MEDICAL AT 2, CHURCH STREET.

	Morning	Afternoon
Monday	Treatment Clinic Ophthalmic Clinic	Minor Ailment Clinic
Tuesday	Treatment Clinic	Nasal Diastolisation
Wednesday	Treatment Clinic Artificial Sunlight	Tonsil Clinic Kromayer Lamp (7 to 9 p.m.)
Thursday	Treatment Clinic	Skin Clinic Contact Clinic (7 to 9 p.m.)
Friday	Treatment Clinic Artificial Sunlight Aural Clinic	Nasal Diastolisation Immunisation Clinic
Saturday	Treatment Clinic Ophthalmic Clinic Exceptional Children	

DENTAL CLINICS are held daily.

## HOSPITALS, PUBLIC AND VOLUNTARY.

General hospital service is provided by the Southport Infirmary, which in addition to out-patient departments, contains accommodation for 127 bed-patients. The published Annual Report of the Infirmary Board for the year 1937 shows that 2,556 persons received in-patient treatment at the Infirmary in that year, and that 6,463 persons (of which 1,440 were accident emergency cases) attended the Out-patient Department, and altogether made 64,463 visits.

The Corporation has an arrangement with the Infirmary Board for the treatment of cases of surgical tuberculosis, and during the year, eight patients were treated at the Infirmary under this scheme.

In regard to hospitals belonging to the Corporation, a list is appended showing the nature of the hospitals, together with the accommodation thereat :

New Hall	(a) Fever	70 beds
	(b) Sanatorium	36 beds
Fleetwood Road	Aged and Chronic Sick	62 beds
Maternity Hospital	Maternity	30 beds
V.D. and Skin	V.D. and Skin	16 beds

An account of the work undertaken at each of these hospitals during the year 1937 is set out in various parts of this Report.

For the first time there is included in this Report, at the special request of the Health Committee, a tabulated statement of costs of Corporation Hospitals, as prepared by the Borough Treasurer, which covers the two years prior to 31st March, 1938. The issue of this statement within a few days of the end of the financial year makes it necessary to point out that the final figures of costs for the 1937-38 year may be expected to vary slightly from those given.

Much difficulty was experienced during the year in recruiting efficient nursing and domestic staffs at the various hospitals. The Health Committee has given full consideration to the matter and, when the revised scale of salaries agreed to by the Committee is finally approved by the Council, it is anticipated that many of the difficulties at present being experienced will be removed.

## INSTITUTIONAL MEDICAL SERVICES AND MEDICAL OUT-RELIEF.

The administration of medical services transferred from the Board of Guardians continued to be carried out by the Public Assistance Committee with the exception of one important instance, namely that of aged and chronic sick who are cared for by the Health Committee at Fleetwood Road Hospital, an account of the work of which is given below.

The care of children coming under the Public Assistance Committee while being administered by that Committee is carried out (a) at Lincoln House under the direction and control of the Medical Officer of Health, and (b) by the method of "Boarding-out" which also is supervised in the Health Department.

On the 30th December, 1937, the Minister of Health approved a Scheme under Sub-section (2) of Section 131 of the Local Government Act, 1929, known as The County Borough of Southport Administrative Scheme, 1937, which revokes a previous scheme and amendment made in 1929 and 1932 respectively. Under the heading of "Discharge of Certain Functions of Public Assistance Committee by Other Committees" the scheme contains the following provisions :—

(a) The Health Committee shall on behalf of and subject to the general direction and control of the Public Assistance Committee, manage all the Poor Law Establishments (other than Lincoln House or other Children's Homes) and in particular shall :

- (1) Arrange for the proper care and maintenance of all sick persons requiring relief in such Poor Law establishments.
- (2) Define the class of persons requiring relief in a Poor Law establishment.
- (3) Advise as to the provision and classification of establishments and arrange for their maintenance, management, visitation and inspection.

(b) The Education Committee shall on behalf of and subject to the general direction and control of the Public Assistance Committee carry out the functions of the Public Assistance Committee in so far as they relate to :

- (1) the education and maintenance of poor children apart from their parents ;
- (2) the arranging in suitable cases for the rights and powers of parents in respect of children being vested in the Council under Section 52 of the Act of 1930 ;
- (3) the apprenticing and placing out of children ;
- (4) the arranging for the emigration of suitable children who are desirous of emigrating other than children emigrating with their parents or adult relatives.

(c) The Blind Persons Act Committee shall on behalf of and subject to the general direction and control of the Public Assistance Committee, carry out the functions of the Public Assistance Committee in so far as they relate to :

- (1) Domiciliary relief of the sighted dependent wives and/or children under 16 years of age, of blind persons residing with them.

## **REGISTRATION OF NURSING HOMES.**

Three applications for registration of a nursing home were received during the year, and approved by the Health Committee. Two were in respect of re-registrations after certain structural alterations had been made in the Homes. Full inquiry is made into all applications before submission to the Committee and regular visits of inspection are made to all Homes on the Register.

## **FLEETWOOD ROAD HOSPITAL.**

This hospital was opened in 1931 for the treatment of aged chronic sick people under powers granted in the Local Government Act, 1929. The hospital accommodates 62 patients, 28 men and 34 women. Consideration was given during the year to certain unsatisfactory features connected with accommodation of staff and the Health Committee has decided to proceed with the erection of an extension to the building at an early date.

Patients for admission to the hospital are selected from Southport residents at the Ormskirk Public Assistance Hospital and application of this rule is rigidly enforced. Exception is sometimes made on the application of a medical practitioner in a case where the journey to the Ormskirk Institution is likely to be prejudicial to the condition of the patient. In these cases, inquiry is made into the circumstances of the patient, and assurance obtained on questions of "settlement" and responsibility of relatives.

The work of the hospital during 1937 may be briefly summarised as follows : 22 men and 32 women were under treatment on the 1st January ; 44 new patients were admitted during the year ; 8 were discharged and 32 died. Thus there were 58 patients, 24 men and 34 women in hospital on the 31st December, 1937.

#### **LINCOLN HOUSE.**

The number of children resident in Lincoln House at the beginning of the year was 22. During the year there were 11 admissions.

Owing to improved circumstances at home, 10 children returned to their parents and one girl who had reached the age of 14 years was admitted to the Francis Owen Domestic Training School at Cheltenham.

A report on the Home was contained in the Annual Report for 1936, and the unsuitability of the present premises was stressed. The present management of the home is excellent, and a greater interest is manifested in the individual child, and his temperament. The children are happy and have been in good health throughout the year.

If more suitable and convenient premises were available, the difficulties in organisation, staffing and supervision of the children would be considerably reduced.

#### **BOARDED-OUT CHILDREN.**

A register containing the names and addresses of the boarded-out children is kept at the Health Department and on 1st January, 1937 there were 29 children on the register. A suitable home was found for one child, so increasing the number to 30.

Four children were removed from the register as follows :—

- (a) A boy who attained the age of 16 years ;
- (b) A boy was transferred to the St. Vincent Roman Catholic School at Preston, owing to the inability to control him adequately at the foster-parent's home.
- (c) A girl who was sent for training to a Domestic Training Home in Liverpool ; and
- (d) A boy who was admitted for training to the Royal Navy.

Twenty-six children remained under the immediate care of the Department at the end of the year.

Careful supervision of the foster-parents' homes was continued during the year, and this work is undertaken by one health visitor whose visits are welcomed and advice valued by the foster-parents.

The difficulty of finding suitable homes for destitute children is very real at the present day, but an endeavour is made to discover these and to form a waiting list, so that suitable children can be accommodated quickly as the occasion arises.

In the last Annual Report the general rules to be observed in approaching the problem of boarding-out were outlined and bear repetition.

- (1) The finding of suitable homes should be the work of a person with special experience in this work.
- (2) The economic conditions of the foster home should be sound, apart from the maintenance allowance for the boarded-out child.
- (3) Both foster-parents should be interviewed and an attempt made to decide as to their suitability.
- (4) A child should not be boarded out where there is a foster mother only.

(5) No child of over five years of age should be boarded-out. An exception to this rule may be made if the child is boarded out with relatives.

(6) An examination should be made to ascertain that there is nothing in the child's physical and mental condition which would militate against boarding-out.

(7) A boarded-out boy at 10 years of age should be drafted to a training school, although exceptions could be made in certain circumstances.

(8) Girls, when necessary, should be transferred to training centres at the age of 14 years.

### MATERNITY AND CHILD WELFARE.

1937 was a landmark in the history of domiciliary midwifery, as during the year a service of municipal midwives was established under the local authority for the first time.

The provision of such a service has tended to unify and co-ordinate all the maternity work for which the Health Committee is responsible, and this has been reflected in the increased use made of the ante-natal services.

As in previous years, two weekly clinics have been held.

**MATERNITY HOSPITAL CLINIC.**—This clinic is held at the Christiana Hartley Hospital and conducted by the Medical Officer in Charge. During the year, 330 new patients attended, and in all, 1,960 attendances were made, compared with 1,851 in 1936.

**CENTRAL ANTE-NATAL CLINIC.**—This clinic is still held weekly on Thursday morning, but in October was moved from the rooms in Church Street ordinarily used for school clinics, to more adequate self-contained premises at 44, Houghton Street.

The move has been popular with those who attend, and the number of new patients rose from 212 in 1936 to 268 in 1937. Part of this increase was due to the co-operation of the newly appointed municipal midwives, who are expected to make certain that their patients have the necessary medical supervision during pregnancy. Of the new patients, both the number of primipara, and the number of unmarried mothers, were double what they were in 1936, which suggests that this clinic is being increasingly used in early pregnancy by those who require advice as to the best arrangements to make. It is hoped in time, to avoid confinements under conditions which are unsuitable.

Although not directly attached to a hospital, the clinic is well provided for in the matter of securing beds for ante-natal cases, even early in pregnancy. Patients were referred to the Maternity Hospital and admitted on account of hyperemesis (1), albuminuria (3), small pelvis (5), mal-presentation (2), other conditions (5).

Apart from anaemia, which is still prevalent amongst expectant mothers, particularly multiparae, the commonest condition calling for treatment was albuminuria. There were 10 severe and 28 milder cases amongst those attending. The mild cases and four of the more severe cleared up under clinic supervision, while three severe cases were admitted to hospital, and three were referred for treatment at home by general practitioners.

General clinic services are made use of for those who require treatment or investigation. Eight patients were examined at the tuberculosis dispensary and 18 were referred to the venereal diseases specialist for an opinion and treatment.

THE MATERNITY DENTAL CLINIC is used by both expectant and nursing mothers, and during the year, 143 were treated. The number of extractions was halved compared with the previous year and the number of fillings doubled, which is a cause for hope that conservative dentistry is becoming more acceptable to this group of patients.

Attendances at Central Ante-Natal Clinic for the last five years :—

	1st visits	Re-visits	Total
1933 .....	148 .....	482 .....	630
1934 .....	161 .....	536 .....	697
1935 .....	200 .....	680 .....	880
1936 .....	207 .....	700 .....	907
1937 .....	268 .....	765 .....	1,033

Provision for extra nourishment and other necessities is made according to an income scale. Where nourishment is required, it is usually given in the form of pasteurised milk, and 424 gallons were supplied free compared with 375 gallons in the previous year.

Sterilized *maternity outfits* are supplied to cases attended by municipal midwives, either free or on a small payment, and many other requirements can be met in suitable cases by co-operation with the Area Officer of the Unemployment Assistance Board. *Home helps* were provided in 14 cases, by arrangement with the voluntary Maternity and Child Welfare Centres Committee, and further consideration has been given to the matter following the receipt of Circular 1622. *Convalescent treatment* or change of air for mothers, both expectant and nursing, has also been made available by the voluntary committee.

MIDWIVES.—Twenty-three midwives notified their intention to practise during 1937. Of these seven are keepers of Maternity Homes besides doing district work. The Supervisor of Midwives paid 46 visits.

Medical help was called in by district midwives in 13 cases on account of the child, and on account of the mother's condition there were 122 calls of which 54 were for suture of the perineum. Fees to the amount of £136 3s. 6d. were paid by the Committee to medical practitioners for these services.

PUERPERAL PYREXIA.—There were seven notifications of puerperal pyrexia received. All rapidly recovered, with the exception of one patient who eventually died from pre-existing disease.

Three cases of puerperal fever occurred. All were in-patients confined at home. Two had engaged a doctor and the third was in a primiparous patient attended by a midwife only. All were admitted to New Hall Hospital. Two died, one from puerperal sepsis and the other from co-existing tuberculosis.

OPHTHALMIA NEONATORUM.—Five notifications were received. Four of these were of infants born in the Maternity Hospital and one was a district case. All were admitted for treatment to the department for venereal diseases, and made a complete recovery without damage to the vision. In the district case the infecting organism was not the gonococcus.

MATERNAL DEATHS.—Four deaths were associated with child-bearing. One was from postpartum eclampsia in a patient who had been under constant medical supervision at home. One was due to embolism following Caesarean section. Two were due to puerperal fever, but in one the case was complicated by tuberculosis.

In every case a doctor had been engaged for the confinement.

### NOTIFICATION OF BIRTHS.

	Notified by Medical Practitioners	Notified by Midwives	Duplicate Notifi- cations	Total
Still-births :				
(a) Legitimate .....	8	27	—	35
(b) Illegitimate .....	—	1	—	1
Live-births :				
(a) Legitimate .....	187	714	52	849
(b) Illegitimate .....	1	55	—	56
	196	797x	52	941

xIncludes 343 hospital cases.

Births not notified (2).

HEALTH VISITING.—The division of work was continued as detailed in the Annual Report for 1936, with this exception, that the introduction of the municipal midwifery service has allowed of the ante-natal visiting connected with many cases to be taken over by the midwives.

The time so saved is to be devoted to extra visits during the first few weeks of life and to still more systematic visiting of toddlers. During the year the following visits were paid :—

Ante-Natal cases :	1st visits .....	241
	Re-visits .....	1,110
Post-Natal cases :	1st visits .....	870
	Re-visits .....	5,626
Visits to Children 1-5 years .....		6,972
Visits to Boarded-out Children .....		263
Visits to Nurse Children .....		293

CHILD WELFARE CENTRES.—The arrangements for the five Welfare Centres have not been altered. Three are held in Corporation buildings and two in Church halls. The latter have the disadvantage that they are not available for lectures, etc., at times other than those at which the Centre is held.

The total attendances of mothers and children were 34,872. Of these, 8,625 attendances were made by children between the ages of 1 and 5 years. The opening of additional nursery classes in elementary schools will probably, in future, reduce this number.

Lectures and demonstrations were held in the winter months once a fortnight at the Hampton Road Centre, and were well attended.

Keep-Fit classes for Mothers were opened in June, 1936, and were so successful that in September, 1937, they were moved to larger premises. Four classes for women are now held weekly in Southport by the Lancashire Keep-Fit Movement. They are enthusiastically attended and great benefit is derived from the recreative physical training given.

NURSE CHILDREN.—There were 41 children on the register at the beginning of the year : 18 were admitted to the register and 24 discharged, leaving 35 under supervision at the end of the year.

# SOUTHPORT AND BIRKDALE DAY NURSERY, DUKE STREET.

Individual children admitted .....	62
Attendance (days).....	2463
Average weekly attendance.....	54
Average daily attendance .....	11

## ST. KATHARINE'S HOME.

### MATERNITY CASES.

In Institution on Jan. 1st.		Admitted during the year.	DISCHARGED DURING THE YEAR.								In the Institution on Dec. 31st.	Mother days.
			To the Union.	To the V.D. Ward.	To Infirmary.	Own Homes.	Other Homes.	To Mat. Hospital.	Domestic Service.	Died.		
1932	7	25	1	1	1	17	3	1	3	—	5	2413
1933	5	20	—	2	—	13	2	—	2	—	6	2580
1934	6	32	1	3	—	13	6	—	8	—	7	3001
1935	7	34	1	3	—	19	7	1	1	—	9	2899
1936	9	46	4	4	—	26	10	—	5	—	6	2530
1937	6	48	1	3	—	28	3	1	6	—	12	2278

### INFANTS.

	In Institution on Jan. 1st.	Admitted during the year.	Born in Home during the year.	DISCHARGED DURING THE YEAR.						In Institution on Dec. 31.	Infant days.
				Discharged with their Mothers.	To Foster-Mothers.	To another Home.	To the V.D. Ward.	To the Union.	Died.		
1932	4	5	16	13	2	4	1	1	—	4	1813
1933	4	2	12	9	2	3	—	—	1	3	1584
1934	3	6	20	7	6	4	3	1	3	5	1728
1935	5	1	27	6	5	9	2	2	3	6	2016
1936	6	5	35	12	8	14	2	4	1	5	2025
1937	5	2	34	21	10	5	1	1	—	3	1198

## MUNICIPAL MIDWIVES.

This service commenced on 1st October, 1937. Four midwives were appointed, all of whom had been in practice for some years in the town. Although the Committee realised that a time may come when further appointments to this service may be necessary, it was decided to commence with four. Experience shows that this was a wise decision, for at present the four midwives are able to cope with all the demands on their services.

During the period under review, i.e., the last three months of the year, 65 women engaged the service of the midwives, and 44 confinements were conducted in the district. A tendency is shown for this number to increase, but an ample margin of time is available for ante-natal and post-natal visiting. The new midwifery service must prove an important factor in knitting together the maternity services in the County Borough. It has resulted already in an increased attendance at the ante-natal centres.

Municipal midwives have at times assisted in the work of the Christiana Hartley Maternity Hospital, thus giving them an opportunity to renew their knowledge of the more intensive work of hospital practice. It is believed that nothing but good can result from this system of interchange of staff between the two sections of the work. The aim of all maternity schemes must be to develop and co-ordinate all the services of the district in such a way that the expectant mother, no matter what her status may be, shall have a complete and efficient organisation at her disposal.

Provision is made in the scheme for post-certificate training of the midwives, so that they may be taught the latest midwifery practice.

From the point of view of the mother, the inauguration of the new midwifery service, together with its complete co-ordination with the maternity hospital service, means a great deal. The midwife has at her disposal in cases of difficulty, not only the patient's doctor, but also a specialist who is widely experienced in midwifery work, and an up-to-date hospital to which her patient may be sent if necessary. It must be emphasised, however, that while this determined effort to merge the midwifery and maternity services into one composite whole has been going on, care has been taken to ensure that nothing in the nature of ruthless trampling on the field of the private midwife has occurred. Indeed, the principle that the expectant mother may have the midwife she chooses is still the fundamental rule. The municipal midwives carry on their work as before, and accept bookings from those mothers who call upon them. No intensive advertising is practised, nor is canvassing tolerated.

Expectant mothers who book a municipal midwife are advised to attend the Ante-natal Clinic. The door of this clinic, however, is open to all mothers. Out of the 44 confinements attended by municipal midwives during the three months of 1937, in which the scheme operated, 32 of the mothers had attended and Ante-natal Clinic. On booking a municipal midwife the mother receives a booklet which provides her with full particulars of the Corporation's midwifery and maternity services, and also details of charges. She may pay the

fees in advance, through the midwife if she wishes, or wait until she receives an account from the Borough Treasurer, which is usually sent about seven to fourteen days after the confinement. Also if the family circumstances are such as to cause hardship, the Corporation has taken advantage of the right granted under the Midwives Act to make a partial or complete reduction of the fees.

## CHRISTIANA HARTLEY MATERNITY HOSPITAL.

### Report of the Medical Officer-in-Charge.

During the year, the number of admissions to the Hospital was 347, of which 186 were primiparae, and were, therefore, attending the hospital for the first time. Of the 355 babies born here in the twelve months, 190 were girls and 165 were boys.

There were 17 babies still-born, and two miscarriages. 15 of the babies who were born alive died within ten days from the following conditions :—

Atelectasis .....	4
Prematurity .....	6
Convulsions .....	3
Exomphalos .....	1
Asphyxia .....	1

The number of private patients who came to the Hospital for their confinement was 53, a figure which is a considerable increase on that for the previous year.

Among the abnormal cases which were treated were :—

Eclampsia .....	3
“ White Leg ” and Pulmonary Embolism .....	1
Placenta Praevia .....	2
Multiple Pregnancy :	
Six sets of twins .....	} 7
One set of triplets .....	

and the following special procedures were adopted in suitable cases :—

Caesarean Section .....	14
Forceps Application .....	12
Stomach Tube Induction .....	2
The following malformations were met with in the babies :—	
Spina Bifida .....	2
Anencephaly .....	1
Hydrocephalus .....	1
Exomphalos .....	1

Three cases had to be notified as Puerperal Pyrexia. Four babies were sent to the Skin Department for treatment of Ophthalmia Neonatorum.

The Ante-natal Clinic is still well attended, and affords a continuous observation of the expectant mothers. During the year 330 patients made 1,906 attendances.

# CHRISTIANA HARTLEY MATERNITY HOSPITAL.

Number of Beds.....30.

	1936	1937
Admitted during the year .....	312	347
Average duration of stay (days) .....	18	18
.....Delivered by :		
(a) Midwives .....	278	278
(b) Doctors .....	34	65
Number of cases in which medical assistance was sought by a midwife in emergency .....	42	50
Number of cases notified as :		
(a) Puerperal Fever .....	1	—
(b) Puerperal Pyrexia .....	3	3
Number of cases of Pemphigus Neonatorum .....	—	—
Number of cases notified as Ophthalmia Neonatorum .....	1	4
Number of infants not entirely breast-fed while in the Institution .....	22	37
Number of maternal deaths .....	—	2
Number of infant deaths :		
(a) Still-born .....	19	17
(b) Within ten days of birth .....	20	15

MATERNITY DENTAL CLINIC—YEAR 1937.

Date.	Appointments.		Number of Visits		New Cases.	Extractions.	Anæsthetics.			Fillings.	Root Treatment.	Dressing.	Sealing.	Oral Affections.	Examined.	Impressions Taken.	Bite Taken.	Try In.	Finished Denture				Repair.	Re make.
							Loc. N <sub>2</sub> O Gen.		U.										L.	Partial.	Full.			
	1st.	Re.																						
Jan. ....	51	27	29		7	15	15	—	—	8	2	—	—	8	13	18	6	7	2	—	1	1	1	—
Feb. ....	51	10	39		5	39	14	—	1	7	1	—	2	6	14	8	—	4	—	1	3	2	3	—
Mar. ....	46	10	26		4	17	17	—	—	7	2	—	3	2	11	6	1	2	—	—	1	1	2	—
April ...	45	14	41		10	13	11	—	—	9	3	11	3	8	8	9	2	5	1	—	2	2	—	—
May ...	46	5	30		1	8	7	—	—	11	10	1	4	7	5	9	2	2	1	—	—	—	2	—
June ...	43	10	31		6	9	9	—	—	6	4	1	1	9	11	4	—	4	1	—	—	—	1	—
July ....	45	17	39		9	22	21	—	—	20	2	2	7	3	14	4	1	3	1	1	—	—	4	—
August ...	14	2	5		1	—	—	—	—	—	—	1	—	1	5	—	—	—	—	—	—	—	—	—
Sept. ....	40	7	26		6	42	17	—	1	9	—	2	1	2	12	2	1	2	—	—	—	—	1	—
Oct. ....	58	16	47		12	56	20	—	2	5	—	—	3	8	20	11	3	3	—	—	2	2	1	—
Nov. ....	58	14	36		11	54	26	—	1	17	—	2	4	11	13	5	1	3	—	—	—	1	1	—
Dec. ....	46	11	41		9	14	11	—	—	9	—	—	2	6	16	6	2	4	—	—	3	—	2	—
Totals ....	543	143	390		81	289	168	—	5	108	24	20	30	71	142	82	19	39	6	2	12	9	18	—

# CAUSES OF INFANT MORTALITY.

Causes of Death	Under one week	1 to 2 weeks	2 to 3 weeks	3 to 4 weeks	Total under 1 month	1 to 3 months	3 to 6 months	6 to 9 months	9 to 12 months	Total under 1 year
Measles .....	—	—	—	—	—	—	1	—	—	1
Whooping Cough .....	—	—	—	—	—	—	1	—	—	1
Congenital Heart Failure.....	—	—	—	—	—	—	—	—	1	1
Convulsions .....	3	—	—	2	5	—	—	1	—	6
Spina Bifida .....	—	2	1	—	3	—	—	—	—	3
Bronchitis .....	—	—	—	—	—	—	—	1	—	1
Pneumonia (all forms) .....	—	—	—	1	1	—	3	2	1	7
Septicaemia .....	—	—	—	—	—	—	1	—	—	1
Gastro-Enteritis .....	—	—	1	—	1	1	2	1	—	5
Asphyxia .....	1	—	—	—	1	—	—	—	—	1
Diabetes .....	—	—	—	—	—	—	—	1	—	1
Atelectasis .....	4	—	—	—	4	—	—	—	—	4
Premature Birth .....	15	1	—	—	16	—	—	—	—	16
Marasmus .....	1	—	1	—	2	1	—	—	—	3
Intestinal Obstruction .....	—	—	—	—	—	1	—	—	—	1
Other Causes .....	1	—	—	—	1	—	2	—	1	4
TOTALS .....	25	3	3	3	34	3	10	6	3	56

PUBLIC ASSISTANCE INSTITUTION, ORMSKIRK.  
SOUTHPORT CASES.

Year	Persons suffering from sickness, accident, or bodily infirmity, whether arising from Old Age or otherwise (excluding persons suffering from Mental Infirmity).					Persons suffering from Mental Infirmity					Persons not suffering from sickness, accidents, or bodily or mental infirmity (including aged persons who do not require regular nursing care or treatment).				TOTAL	
	Certified under the Lunacy or Mental Deficiency Acts					Not so certified										
						Men.	Women.	Children between 3 and 16 years of age.	Infants (under 3 years of age).	Men	Women	Children (under 16 years of age)	Men.	Women.		Children between 3 and 16 years of age.
1936	16	18	1	3		15	27	—	2	10	—	22	14	—	7	135
1937	8	14	—	—		14	25	—	6	9	1	10	18	—	4	109

COUNTY BOROUGH OF SOUTHPORT.

Statement of Hospital Costs for the Twelve Months ended 31st March, 1937 and 1938.  
(Submitted in accordance with Minute No. 546, dated 16th Dehember, 1937).

	New Hall Hospital (Tuberculosis Section)		New Hall Hospital (Infectious Diseases Section)		Christiana Hartley Maternity Hospital		Fleetwood Road Hospital		V.D. and Skin Diseases Hospital	
	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938
	£	£	£	£	£	£	£	£	£	£
1. Salaries, Wages and Uniforms .....	880	910	2059	2440	1377	1465	1097	1155	628	648
2. Provisions for Inmates and Staff .....	959	1003	1230	1324	691	753	1052	1153	256	233
3. Drugs and Appliances .....	173	175	246	502	124	141	102	86	20	26
4. Fuel, Light, Water and Laundry .....	391	460	1025	1222	770	778	689	788	201	199
5. Domestic Renewals and Additions .....	99	147	287	420	41	57	226	266	92	72
6. Structural Renewals and Additions .....	406	485	447	670	16	206	284	62	57	58
7. Transport .....	71	64	105	95	2	1	5	4	1	—
8. Miscellaneous .....	40	49	90	114	145	148	226	200	49	61
9. Rents, Rates, Taxes and Insurance .....	128	128	368	365	99	96	31	25	28	28
10. Loan Charges .....	1708	1571	4886	4496	—	—	783	769	202	198
11. Less Miscellaneous Income .....	4855 75	4992 76	10743 215	11648 217	3265 —	3645 —	4495 —	4508 —	1534 —	1523 —
12. GROSS COST ( <i>Less Miscellaneous In-</i> <i>come</i> ) .....	4780	4916	10528	11431	3265	3645	4495	4508	1534	1523
13. <i>Less</i> Income from Inmates .....	61	97	98	181	1993	2333	1689	1793	156	182
14. NET COST .....	4719	4819	10430	11250	1272	1312	2806	2715	1378	1341
Cost per Inmate Day—										
15. Gross Cost ( <i>Less</i> Miscellaneous In- <i>come</i> ) .....	s. d. 9 4	s. d. 10 2	s. d. 14 4	. d. 16 0	s. d. 11 6	s. d. 11 2	s. d. 4 3	s. d. 4 2	s. d. 17 7	s. d. 19 11
16. Net Cost ( <i>Less</i> Income from Inmates)	s. d. 9 2	s. d. 10 0	s. d. 14 2	s. d. 15 9	s. d. 4 6	s. d. 4 0	s. d. 2 8	s. d. 2 6	s. d. 15 9	s. d. 17 7
17. Actual Number of Inmate Days .....	£ 10260	£ 9641	£ 14704	£ 14291	£ 5667	£ 6532	£ 21303	£ 21756	£ 1747	£ 1528
18. Capacity in Inmate-Days .....	13140		25550		11680		22630		6935	
19. Number of Beds .....	36		70		32		62		19	

Borough Treasurer's Office, Southport, 12th April, 1938.



**Part III.**

**SANITARY CIRCUMSTANCES OF  
THE AREA.**

## SANITARY CIRCUMSTANCES OF THE AREA.

### WATER.

The water supply is maintained by the Southport and District Water Board, which is a combination of the local authorities of the County Borough of Southport, the Urban District of Formby, and the West Lancashire Rural District. The Board supplies water within the area of these three authorities.

With the exception of 22 houses the whole of the County Borough is supplied from the Board's pumping stations. These exceptions obtain their supply from shallow wells, the water from which has given no cause for apprehension up to the present.

There are five pumping stations owned by the Water Board, and these are situated six to ten miles south-east of the town.

The wells and boreholes are all over 200 feet deep. Owing to the depth of the wells and the nature of the strata the possibilities of contamination are remote. The water has no plumbo-solvent action, and although somewhat hard is exceptionally pure, both chemically and bacteriologically.

The fifth pumping station was opened in July, 1934, and the water from this well shows a marked difference from the other four, being a much softer supply.

During the year ended 31st March, 1937, the Board supplied direct an estimated population of 119,600, excluding summer visitors. The average domestic consumption, excluding meter supplies, and based on this population figure, was at the rate of 24.1 gallons per head per day, and the total consumption 30.1 gallons per head per day.

Samples of water are taken regularly and, as is customary, a set of the reports of one of the periodical samplings is included in this Report, Page 38.

For some reason which is difficult to explain, the supply which has always been of exceptional purity is even purer than before. The bacteriological content is negligible and at times sterile.

A report from Professor Dible, dated 27th November, 1937, showed the following results :—

Number of organisms grown on agar at 37°C. .... = none in 2 c.c.  
Number of organisms grown on gelatine at room  
temperature for three days ..... = none in 1 c.c.  
“ The water sample was sterile.”

Again, samples from the various wells were sent to Drs. Beale and Suckling Bacteriologists, London, on 19th October, 1937, by the Water Engineer, and the results of their examination showed that those from the Bickerstaffe and Scarth Hill wells were practically sterile, and that from the Blundell House well completely sterile.

The results of these examinations are shown below :—

COPY OF BACTERIOLOGICAL EXAMINATION OF SAMPLES OF WATER TAKEN ON  
19TH OCTOBER, 1937, BY DRs. BEALE AND SUCKLING.

	Halsall Lane	Spring- field	Bicker- staffe	Scarth Hill	Blundell House
Number of Bacteria per c.c. on agar in three days at 20 °C.	12	10	2	1	—
One day at 37 °C.	—	1	—	—	—
Two days at 37 °C.	1	3	—	—	—
Bacillus Coliabsent in	100 c.c.	100 c.c.	100 c.c.	100 c.c.	100 c.c.
Bacillus Welchii absent in .....	100 c.c.	100 c.c.	100 c.c.	100 c.c.	100 c.c.

A possible explanation may be that as a result of the last two dry years, the water now reaching the wells is coming from the more distant areas of the gathering grounds and is thus subjected to a greater degree of natural filtration. A point which may support this theory is the slight increase in the chemical content of the water.

SAMPLE OF WATER SUBMITTED FOR BACTERIOLOGICAL  
EXAMINATION on 28th August, 1937.

Number of organisms grown on gelatine at room temperature for three days .....	20 organisms per c.c.
Number of organisms grown on agar at 37 deg. C. in two days .....	6 organisms per c.c.
Test for B.Coli .....	Absent in 100 c.c.
Streptococci faecalis .....	Absent in 100 c.c.
B. Welchii .....	Absent in 100 c.c.

J. HENRY DIBLE,  
Professor of Pathology, University of Liverpool.

**SAMPLE OF WATER SUBMITTED FOR CHEMICAL ANALYSIS**  
on 26th August, 1937.

	Parts per 100,000
Calcium Carbonate .....	18·0
Magnesium Carbonate .....	4·4
Magnesium Sulphate .....	9·0
Sodium Sulphate .....	0·5
Sodium Chloride .....	4·3
Sodium and Potassium Silicates, etc. ....	4·6
	<hr/>
	40·8
	<hr/> <hr/>
Reaction to Litmus—Neutral pH value 7·1 .....	—
Temporary hardness .....	23·3
Permanent hardness .....	7·5
Total hardness .....	30·8
Ammonia .....	—
Ammonia from Organic Matter .....	—
Oxygen required to oxidise } in 15 minutes .....	0·010
} in three hours .....	0·016
Nitrogen as Nitrates .....	Traces
Nitrogen as Nitrites .....	—
Combined Chlorine .....	2·60

The sample was clear, colourless and odourless. It was free from solid matters in suspension.

The water maintains its exceptionally high state of organic purity.

W. H. ROBERTS, M.Sc., F.I.C.

**Drainage and Sewerage.**—No extensive works were carried out during the year. Discussions have taken place with a neighbouring authority in regard to the sewerage of certain properties in outlying parts of the district, which are, at present, served by cesspools.

**Closet Accommodation.**—All the houses in the town are on the water carriage system with the exception of 123 houses in outlying parts, which are outside the sewerage area. This number is made up of 34 privies and 89 cesspools.

**HOUSE DRAINAGE.**

	1935	1936	1937
Houses drained or re-drained .....	72	87	68
House drains unstopped .....	435	468	411
Midden privies converted into W.C.'s .....	4	—	—
Bristol ejects and trough closets converted into Fresh Water Closets .....	6	7	—
Wet ashpits converted into dry .....	4	—	—
Sundry structural nuisances abated .....	121	145	134
	<hr/>	<hr/>	<hr/>
	642	707	617
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

**Household Refuse.**—The work of collection and disposal of refuse is carried out by the Borough Engineer. The method of collection of household refuse used is that commonly known as the “ Pagefield ” system, which is a combination of the horse and motor collection. This system is augmented in certain parts of the Borough by motor lorry collection. Household refuse is disposed of by means of “ controlled ” tipping on waste land.

Statistics for the past five years kindly supplied by the Borough Engineer are set out below :—

	1933	1934	1935	1936	1937
Refuse collected : Loads .....	13,774	13,578	13,208	14,194	13,855
Tonnage.....	—	—	—	24,556	24,015
Ashpits replaced by ashbins .....	—	24	6	—	—

**Sanitary Inspection of the Area.**—For the purpose of sanitary inspection the Borough is divided into five districts each of which is under the control of one Sanitary Inspector. An account of the work of the inspectors is set out below :—

#### ABSTRACT OF WORK OF SANITARY INSPECTORS.

Total visits .....	30,780
Complaints received from public .....	1,429
Inspections on complaints .....	1,429
Miscellaneous inspections .....	7,397
Houses completely inspected—for in-going tenants, sickness, etc. ....	588
Re-inspections relating to sanitary defects under notice, etc. ....	2,942
Routine Inspections of Special Premises :	
Factories and Workshops, including Bakehouses .....	531
Common Lodging-houses .....	284
Stable Premises .....	34
Offensive Trades .....	273
Milk Shops and Dairies .....	499
Smoke Observations (one hour each) .....	31
Sanitary Defects remedied :	
Houses re-drained, or drains amended, etc. ....	309
Building and altering W.C.'s .....	374
Miscellaneous Nuisances, etc., remedied .....	893
Total .....	15,584

#### NUISANCES.

Notices served for Abatement of Nuisances, etc. :	
Verbal .....	127
Preliminary .....	384
Statutory .....	101
Sewer complaints reported to Highways Department .....	14
Sanitary Certificates issued .....	2

## ABATEMENT OF NUISANCES.

Cases reported .....	1,696
Cases abated .....	1,690
	<hr/>
Cases not abated .....	6
	<hr/> <hr/>
Deferred for further negotiations .....	4
Work in progress .....	1
Premises unoccupied .....	1
	<hr/>
	6
	<hr/> <hr/>

## INFECTIOUS DISEASES.

Inquiries into cases .....	2,003
Patients removed to Isolation Hospital .....	427
Houses disinfected .....	424
Bedding disinfected .....	442
Schools disinfected .....	8
Stables and cowsheds disinfected .....	1
Notices to School Attendance Officers .....	895
Notices to Free Library .....	718
Notices to School Medical Officer .....	627

**Shops.**—The administration of the Shops Acts is carried out by the Weights and Measures Department. Instances of defects coming under Section 10 of the Shops Act, 1934, found by the inspectors of that Department are immediately reported to the Medical Officer of Health and suitable action taken.

**Smoke Abatement.**—Smoke abatement has received careful attention. Thirty-one observations of one hour each were made by the inspectors as a result of which it was found necessary to give verbal warnings in a small number of cases. Any complaints made in respect of smoke nuisances have received immediate attention.

**Swimming Baths and Pools.**—The Victoria Baths are situated near the Pier and adjacent to Nevill Street. There are three sea-water swimming baths, 45 slipper baths filled with sea and fresh-water supplies, four “Zotofoam” and “Pine Bubble” baths, and in addition, suites of Turkish and Russian baths.

The sea-water supplied to the baths is treated by the most up-to-date method of filtration, and samples of the bath water from the Plunge Baths, taken from time to time, invariably indicate an exceptionally high standard of purity.

The Baths are open all the year round and the number of bathers attending during 1937 was 112,055 in the Plunge Baths, Slipper Baths 10,812, Russian and Turkish Baths 2,783, and “Zotofoam” Baths 661.

The Canning Road Baths were opened in 1903 and consist of one Open-Air Swimming Bath (to which there is free admission to boys and girls under 16 years of age), and six Slipper Baths. The number of bathers attending the Slipper Baths during the year was 3,984.

The Compton Road Baths comprise one Open-Air Swimming Bath (which is free to boys and girls under 16 years of age), and ten Slipper Baths. 5,576 persons made use of the Slipper Baths during the year.

A large Open-Air Bathing Lake situated in Princes Park is available for mixed bathing. The lake is 330 feet in length, with a maximum width of 212 feet. It is filled with filtered sea water and has a water surface area of over 50,000 square feet.

The sea water with which the lake is filled is first stored in settlement tanks so that any suspended matter is deposited. It is then filtered through fine gravel and sand and finally is carefully chlorinated. Before reaching the lake the water is aerated. This process goes on continuously so that all the water in the lake passes through the filters and chlorination apparatus once in every  $10\frac{1}{2}$  hours. A proportion of fresh sea water, however, is added daily after filtration and chlorination.

Corridor foot baths have been installed in the floors of the corridors from the dressing cubicles to the Pool, thus ensuring that no bathers enter the water without the feet having been rinsed or washed in running water.

Samples of water, taken at frequent intervals throughout the bathing season, show a very satisfactory degree of purity.

**Disinfestation.**—During the year 11 cases of infested houses were reported. Of these, four were Corporation houses, which were dealt with by the Housing Department, and seven were privately-owned houses. In the latter cases, disinfestation was carried out by a contractor engaged by the occupiers of the premises. A sulphur preparation is used for the disinfestation, which is supplemented by the removal of skirting boards, picture moulds and architraves and the application of a blow lamp to the bared spaces. In addition, wallpaper is stripped and burnt and all cracks in the plaster filled in.

**Schools.**—All schools in the Borough are visited regularly by the Sanitary Inspectors for the purpose of inspecting the sanitary conveniences and all sanitary fittings. The schools are provided with a supply of water from the main water supply, the high standard of purity of which is recorded in another part of this Report. The use of an approved disinfectant in the general cleansing of the floors, desks, etc., is insisted upon, and this work, together with the regular flushing of drains, is scheduled as a regular part of the duties of the school caretaker.

Spraying of school rooms after infectious disease is not carried out as a routine measure and is only done on the express instruction of the Medical Officer of Health. Co-operation between the infectious disease service and the school medical service has, however, been developed to a high degree, and no time is lost in following up school children found in houses where the Infectious Disease Officer has had to make inquiries, as the result of a notification of infectious disease.

**Rats and Mice (Destruction) Acts.**—The Department is called upon from time to time to give advice on the extermination of rats. Where complaints have been received, the owners and occupiers of property have been very appreciative of the advice given and shown a general willingness to carry out the suggestions made by the officers of the Department. In no case was it necessary to serve a statutory notice under these Acts.

**Common Lodging Houses.**—There are four registered common lodging houses. They are visited regularly by officers of the Department, and 284 visits were made during the year 1937. The conditions generally are satisfactory.

**FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.**

**1.—INSPECTION.**

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS.

Premises	Number of		
	In- spections	Written Notices	Prose- cutions
FACTORIES ..... (including Factory Laundries)	510	—	None
WORKSHOPS ..... (including Workshop Laundries)	1086	—	„
WORKPLACES .....	204	—	„
TOTALS .....	1800	—	„

## 2.—DEFECTS FOUND.

PARTICULARS.	Number of Defects.			No. of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts—*</i>				
Want of Cleanliness .....	4	4	None	None
Want of Ventilation .....	1	1	„	„
Overcrowding .....	—	—	„	„
Want of Drainage of Floors .....	—	—	„	„
Other Nuisances .....	—	—	„	„
† Sanitary Accommodation {	6	6	„	„
insufficient unsuitable or defective not separate for sexes	1	1	„	„
<i>Offences under the Factory and Workshop Act</i>				
Illegal Occupation of Underground Bakehouse (S. 101) .....	None	None	„	„
Breach of Special Sanitary Requirements for Bakehouses (SS. 97 to 100) .....	2	2	„	„
Other Offences .....	—	—	„	„
TOTALS .....	14	14	„	„

\* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

† Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted in Southport. The standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops is in accordance with the Sanitary Accommodation Order of 4th February, 1903.

## 4.—REGISTERED WORKSHOPS.

Total number of Workshops on Register ..... 441

## 5.—OTHER MATTERS.

CLASS.	NUMBER.
Matters notified to H.M. Inspectors of Factories .....	—
Failure to affix Abstract of the Factory and Workshop Act (S. 133) .....	
Action taken in matters referred by {	
H.M. Inspectors as remediable {	12
under the Public Health Acts, {	
but not under the Factory Act {	12
(S. 5) {	
Other Matters—Forms received from H.M. Inspector <i>re</i> New Workshops .....	17
Underground Bakehouses (S. 101) :—	
Certificates granted during the year .....	—
In use at the end of the year .....	2



**Part IV.**

**HOUSING.**

## HOUSING.

**New Houses.**—A total of 385 new houses were built during the year 1937. All were erected by private enterprise, and the wards concerned were Hesketh, Scarisbrick, Sussex and Ainsdale. Figures for each of the past 10 years are given below. They aggregate 3,387, giving an average per annum of 339. Eight houses were demolished during the year, and the number of inhabited houses according to the Rate books as on 31st December, 1937 was 22,772.

1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
300	250	310	195	292	447	404	420	384	385

**Fitness for Habitation.**—The standard of fitness of houses in the district is good. Details of work done under the Housing Acts are set out in the table below. In the majority of cases the houses found to have defects were instances of single or minor defects. There are a few old cottages in the district and steps have recently been taken to have certain alterations made with a view to bringing these dwellings more in conformity with present day standards.

**Overcrowding.**—The majority of the houses found to be overcrowded at the time of the Overcrowding Survey carried out in 1935-36 have become de-crowded as the result of voluntary rehousing by the tenants themselves. Several of these have had the assistance of officials of the Department, and the Housing Manager has co-operated in providing alternative accommodation as suitable Corporation houses have become vacant.

In regard to the large overcrowded families, of which there are approximately 16, the Sub-Committee appointed to deal with the question of overcrowding, made a survey of the district in an effort to find suitable vacant houses for these families. The inquiry proved fruitless, and it was decided to recommend the erection of large-type houses. This recommendation is now receiving the attention of the Council.

The situation in regard to overcrowding as on 31st December, 1937, is set out in Part 4 of the table on Housing Statistics appended hereto.

### HOUSING STATISTICS.

1. *Inspection of dwelling-houses during the year :*

(1) (a)	Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) .....	1,891
(b)	Number of inspections made for the purpose .....	4,959
(2) (a)	Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 .....	Nil
(b)	Number of inspections made for the purpose .....	Nil
(3)	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .....	Nil
(4)	Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation .....	1,309

2.	<i>Remedy of defects during the year without service of formal notices :</i>	
	Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers .....	1,222
3.	<i>Action under statutory powers during the year :</i>	
	A.—Proceedings under sections 17, 18 and 23 of the Housing Act, 1930 :	
	(1) Number of dwelling-houses in respect of which notices were served requiring repairs .....	6
	(2) Number of dwelling-houses which were rendered fit after service of formal notices :	
	(a) By owners .....	6
	(b) By local authority in default of owners .....	Nil
	B.—Proceedings under Public Health Acts :	
	(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied .....	75
	(2) Number of dwelling-houses in which defects were remedied after service of formal notices :	
	(a) By owners .....	67
	(b) By local authority in default of owners .....	2
	C.—Proceedings under sections 19 and 21 of the Housing Act, 1930 :	
	(1) Number of dwelling-houses in respect of which Demolition Orders were made .....	Nil
	(2) Number of dwelling-houses demolished in pursuance of Demolition Orders .....	Nil
	D.—Proceedings under section 20 of the Housing Act, 1930 :	
	(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made .....	Nil
	(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit .....	Nil
4.	<i>Housing Act, 1935. Overcrowding :</i>	
	(1) (a) Number of dwellings overcrowded at the end of the year .....	64
	(b) Number of families dwelling therein .....	64
	(c) Number of persons dwelling therein .....	463½
	(2) Number of new cases of overcrowding reported during the year .....	Nil
	(3) (a) Number of cases of overcrowding relieved during the year .....	89
	(b) Number of persons concerned in such cases .....	503
	(4) Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding .....	Nil



**Part V.**

**INSPECTION AND SUPERVISION  
OF FOOD.**

## SUPERVISION OF FOOD SUPPLIES.

Milk.—There were 133 dairymen (excluding bottled milk purveyors) in the Borough on the 31st December, 1937. Forty-nine of these are cow-keepers, only three of whom are producing milk under licence granted under the Milk (Special Designations) Order, 1936. The following is a list of the different licences in operation under the Order :—

Producer's Licences .....	Accredited Milk .....	3
Pasteuriser's Licence .....	Pasteurised Milk .....	1
Dealer's Licences .....	Pasteurised Milk .....	19
Dealer's Licences .....	Tuberculin Tested Milk .....	7
Dealer's Licences .....	Accredited Milk .....	1
Supplementary Licence.....	Tuberculin Tested Milk .....	1
Supplementary Licence.....	Accredited Milk .....	1

The pasteurised supplies to schools were continued throughout the year. Supervision has been maintained, not only over processing, which is regularly controlled by sampling, but also by medical examination of workers employed on the pasteurising plant.

As indicated above, there was only one pasteurising plant in the Borough at the end of the year. Early in 1938 an application was received under the Designations Order in respect of a pasteurising plant in another part of the district. The assistance and advice of the Department was given to the applicant throughout his preliminary arrangements.

As in previous years, no effort was spared in guarding the milk supply in cases of infectious disease, and during the slight epidemic which occurred in the latter part of the year, it was found necessary to compensate a small number of milk-vendors' assistants, who had been instructed by the Medical Officer of Health to refrain from carrying on their usual duties as a result of contact with cases of infectious disease.

The efforts of the Department in maintaining a clean milk supply have, if anything, been improved during the year 1937. In addition to the regular sampling of milk and periodical inspection of herds, the practice of subjecting milk to a *sediment test* was commenced. For this purpose samples of milk have been taken at various stages in transit from cow to consumer, and the results of the tests have shown a high standard of cleanliness. Only in two instances out of 52 was it necessary to draw the attention of the farmer to the presence of extraneous matter in the milk, and in both cases a marked improvement was shown within a short time.

The number of samples of milk taken for *chemical analysis* was 186, as compared with 177 in the previous year; the genuine samples for these years totalled 167 and 164 respectively. Fuller details of the non-genuine samples are contained in Appendix I of this section of the Report.

The number of samples of milk taken for *bacteriological examination* greatly exceeded that of the previous year, namely 152 as against 125. Of the 152, 87 were taken from producers inside the Borough, of which one only was found to be tuberculous, and 65 from producers outside the Borough. Six of the latter were found to be tuberculous. A brief statement of the action taken in each of the seven tuberculous samples is given in Appendix II.

During the year, the Department dealt with one case under the *Tuberculosis Order*, 1925, which proved to be tuberculous on post mortem examination. The minimum amount of compensation, namely 30/-, was paid.

Under this Order every person having in his possession or under his charge (1) any cow which is, or appears to be, suffering from tuberculosis of the udder, indurated udder, or other chronic disease of the udder : or (2) any bovine animal which is, or appears to be, suffering from tuberculous emaciation : or (3) any bovine animal which is suffering from chronic cough and showing definite clinical signs of tuberculosis, is required to give notice of the fact to the local authority.

The total number of inspections made by the veterinary surgeon was 1,593, and the number found to be tuberculous, i.e., one, is the lowest dealt with in any year since the Order came into force. The year 1937 marks the last complete year in which this work will be carried out by the Local Authority for, by virtue of Orders operating from the 1st April, 1938, the inspection of cattle is to be organised centrally by the Ministry of Agriculture and Fisheries.

WORN-OUT or DISEASED ANIMALS brought (some at the instance of the Veterinary or Dairy Inspectors) by cattle dealers or farmers in the borough and adjoining districts to be slaughtered for value of salvage, and those dead before arrival :—

From :	Within the borough	Outside the borough
Tuberculosis .....	5	14
Accident .....	3	8
Dropsical .....	4	2
Emaciation .....	—	—
Jaundice .....	—	—
Fevered .....	1	3
Pleurisy .....	1	—
Pyæmia .....	—	1
Peritonitis .....	7	—
Septic Metritis .....	—	2
Septic Mastitis .....	—	—
Immaturity .....	—	—
Nephritis .....	—	—
Pneumonia .....	1	1
Septic Pericarditis .....	1	—
Uraemia .....	1	—
Tumours .....	1	—
Septic Enteritis .....	—	—
Swine Erysipelas .....	3	1
	28	32
	==	==

**Meat.**—Supervision and control of meat supplies have been maintained as in former years. The bulk of slaughtering takes place at the Corporation's Abattoir in Hart Street, an arrangement which lends itself to satisfactory control. Private slaughterhouses, of which there are no more than three, are visited at the time of slaughtering or immediately after, and the visits during the year 1937 totalled 279. A summary of the carcasses inspected and condemned during the year is appended to this section of the Report. Details of the parts condemned are shown in the list of Unsound Food Destroyed.

Meat shops are visited regularly for the purpose of examining meat exposed for sale, and no difficulty is experienced by the inspector. Generally the quality and condition of meat held for sale is remarkably high, and the meat traders of the town willingly co-operate with the Health Department in its work of maintaining a high standard.

**Other Foods.**—An arrangement is in operation with the City Analyst's Department, Liverpool, for the examination of samples of food taken by this Department. Action in respect of non-genuine samples is taken immediately, and a record of the work done is reported to the Health Committee once a quarter. The samples of foodstuffs taken for analysis during the year are summarised in convenient form in a table appended hereto. The grand total (excluding milk) was 155, a number which exceeds that of the previous year by 19. Nine were found to be adulterated but only one to be materially so. The varieties of foodstuffs sampled during 1937 was 74, as compared with 46 in the previous year. Other details relating to samples of food found not to be genuine are given below.

## APPENDIX I.

### PARTICULARS OF FOOD SAMPLES FOUND NOT TO BE GENUINE.

#### (a) FORMAL.

SAMPLE No. 129.—This was a sample of milk found to have been deprived of 21% of its fat. Further samples, Nos. 134 and 195, were taken, the former being short of 26% and the latter of 36% of its milk fat. The producer was prosecuted and fined £2 and costs.

SAMPLE No. 135.—In this case, sample of milk was found to have been deprived of 5% of its milk fat. The vendor was warned and given advice as to the proper mixing of milk. A further sample proved genuine.

SAMPLE No. 152.—This sample, which showed a shortage of 12% of its milk fat, was one of six samples taken from six kits in the course of delivery to the retailer. These six kits were bulked and the sample taken therefrom proved to be genuine.

SAMPLE No. 153.—This milk contained 2·87% fat and 9·27% other solids. As in the previous case, it was one of six samples, and again the test on the bulk supply gave a genuine result.

SAMPLE No. 155.—This milk was slightly watered, and contained 3·35% fat and 8·41% other solids. The producer's premises were visited and the cooling apparatus was found to be leaking. A further sample proved to be genuine.

SAMPLE No. 163.—This sample had been deprived of 10% of its milk fat. The milk was a bulk sample from nine cows, and an "Appeal to Cow" sample (No. 180) revealed a slight deficiency in milk fat. The producer was advised, and a later sample proved to be genuine (cf Informal List No. 189).

SAMPLE No. 223.—The Town Clerk was requested to write a stern warning to the producer of this milk, which showed a shortage of 16% fat. The "Appeal to Cow" sample which was demanded gave a genuine result.

SAMPLE No. 258.—This sample, which showed a deficiency of 11% of its milk fat, was followed by another (No. 276) lacking to the extent of 6%. A third sample proved genuine. The customary advice to the producer re feeding and times of milking was given special emphasis in this case.

SAMPLE No. 278.—Supplies from five farms were involved in this sample, which was found to contain 3% added water. Another sample (No. 288) from the same supply also had 3% added water. Steps were taken to remedy the defective coolers found on visiting the farms, and a further sample turned out to be genuine.

SAMPLE No. 284.—The producer was given advice as to feeding and times of milking in this case, where the sample showed a shortage of 13% of milk fat. An "Appeal to Cow" sample proved genuine.

SAMPLE No. 309.—This was a sample of Beef Sausage, which was found to be deficient in meat to the extent of 6% of the required quantity. The vendor was informed, and an explanation demanded.

#### (b) INFORMAL SAMPLES.

SAMPLE No. 56.—This was a sample of condensed full cream milk, which was found to be slightly deficient in total milk solids.

SAMPLE No. 60.—A sample of tinned fruit salad was found to contain 290 parts of tin per million.

SAMPLE No. 12.—This sample of tinned sild in tomato was found to contain 500 parts of tin per million. The whole stock from which the sample was taken was withdrawn from sale and destroyed.

SAMPLES NOS. 91 AND 292.—Both these samples were of tinned sild in tomato. In No. 91 there were 150 parts of tin per million, and in No. 292, 250 parts of tin per million.

SAMPLE No. 96.—This was a sample of tinned baked beans, in which there was found 175 parts of tin per million.

SAMPLE No. 93.—This sample of tinned brisling contained 285 parts of tin per million.

SAMPLES NOS. 189, 190 AND 191.—These samples were taken following an unsatisfactory result to the "Appeal to Cow" sample in the case of Formal Samples Nos. 163 and 180 (cf Formal List). The samples proved slightly deficient in milk fat, and the producer was advised to give an extra feed. Further samples proved genuine.

SAMPLE No. 327.—This was a sample of milk which proved very slightly deficient in fat. It was decided not to take further action.

SAMPLE No. 42.—A sample of sago, when analysed, was found to consist of tapioca.

## APPENDIX II.

### PARTICULARS OF MILK SAMPLES FOUND TO BE TUBERCULOUS.

#### (a) SAMPLES TAKEN FROM PRODUCERS INSIDE THE BOROUGH.

CASE No. 1.—It was necessary to examine 19 cows. Four samples were taken, the first and second being individual samples, the third a bulk sample from nine cows, and the fourth a sample from eight cows. In each case the result was negative. It is noteworthy, however, that between the original sample being taken and the visit to the farm, one cow had been sold.

#### (b) SAMPLES TAKEN FROM PRODUCERS OUTSIDE THE BOROUGH.

CASE No. 1.—The herd which produced the milk from which the original sample was taken consisted of 19 cows, but on the day of the visit to the farm, it was found that two had been sold, and that three were dry. Three samples were taken, one individual, one bulk sample from six cows, and the third a bulk sample from milk produced by the remaining seven cows. All the samples turned out to be negative.

CASE No. 2.—Again in this case a cow had been sold between the date of the original sample and the visit to the farm. Twenty-one cows were examined and three samples taken, one individual, one sample of bulk milk from 13 cows, and one from 7 cows. All three samples were reported negative.

CASE No. 3.—Seventeen cows were examined, two of which were dry. One of the latter was known to have been yielding a little milk at the time the original sample was taken. The cow was in a low condition and was dealt with under the Tuberculosis Order, 1925. Two samples were taken, one individual, and the other from 14 cows. The individual sample proved positive and the animal was slaughtered under the 1925 Order. The other sample was negative.

CASE No. 4.—Out of 25 cows in this herd, four were dry. Three samples, one individual, one mixed from nine cows, and one from eleven cows, were taken. Tubercle bacilli were found in the mixed sample from nine cows; the other two samples were negative. On the second visit to the farm, consequent on the positive sample, four samples were taken. They were reported negative.

CASE No. 5.—Twenty-two cows were examined and four samples taken, two individual, one mixed from 14 cows and one from six cows. All proved to be negative.

CASE No. 6.—There were 28 cows in this herd when the original sample was taken. One had since gone dry and another, dry at the time of sampling had since calved. Three samples were taken at the time of the visit, one individual, one mixed from 11 cows, and one mixed from 15 cows. All three were reported to be negative.

## VISITS OF INSPECTION.

Public Slaughter-houses .....	590
Private Slaughter-houses .....	279
Butchers' Shops .....	2,722
Fish and Poultry Shops .....	2,759
Other Shops .....	5,475
Restaurants or Hotel Kitchens (work-places) .....	204
Ice-cream Workshops .....	94
Ice-cream Stalls .....	282
Potted Meat and Fish Works .....	698
Piggeries .....	36
Cowsheds .....	150
Milk Farms outside the borough .....	21
Bacteriological Examination of Milk .....	152
Private premises where Pigs are killed .....	5
	13,467

## UNSOUND FOOD DESTROYED.

Under Magistrate's Order : Nil.

By consent of the Owner or Consignee :—

15 Beasts' Carcases and all Organs.	1 Steak and Kidney Pudding (tin).
19 Heads and Tongues.	4 Luncheon Ham (tins).
108 Lungs (sets).	140 Plums (lbs.).
64 „ Livers.	91 Fignon Haddock (lbs.).
26 „ Mesenteries.	1 Turkey and Ham Roll (tin).
9 „ Stomachs.	1 Lobster (box).
12 „ Spleens.	6 Cooked Ham (lbs.).
3 „ Hearts.	16 Corned Beef (tins).
1 „ Skirt.	8 Sheeps' Carcases and all Organs.
4 „ Kidneys.	1 „ Lungs.
2 „ Udders.	1 „ Heart.
1 „ Momentum.	1 Condensed Milk (tin).
36 Pigs' Carcases and all Organs.	1 Damsons (tin).
179 „ Heads.	17 Fruit Salad (tins).
75 „ Lungs (sets).	1 Calf's Carcase and all Organs.
24 „ Livers.	427 Pork (lbs.).
27 „ Mesenteries.	1039 Beef (lbs.).
3 „ Spleens.	20 Bacon (lbs.).
44 „ Hearts.	12 Ox Tongue (tins).
1 „ Kidney.	4 Jellied Veal (tins).
7 „ Stomachs.	24 Peas (tins).
103 „ Plucks.	1 Cream (tin).
1 Lambs' Carcase and all Organs.	471 Wet Fish (lbs.).
5 „ Livers.	12 Chicken.
1 Chicken and Ham (tin).	27 Beans (tins).
13 Ham (lbs.).	3 Sild (tins).
3 Boiled Beef (tins).	2 French Beans (tins).
1 Mutton, Boiled (tin).	1 Tomato Soup (tin).
1 Soup (tin).	1 Loganberries (tin).
106 Turkeys.	9 Plums (tins).
25 Spinach (tins).	4 Brisket Beef (tins).

# CARCASES INSPECTED AND CONDEMNED DURING THE YEAR 1937.

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed .....	1603		592	13863	1096
Number inspected .....	1603		592	13863	1096
All Diseases except T.B. Whole carcasses con- demned .....	1	2	—	11	28
Carcases of which some part or organ was con- demned .....	34	12	—	9	79
Percentage of the num- ber inspected affected with disease other than tuberculosis .....	3.05		—	1.24	9.76
Tuberculosis only— Whole carcasses con- demned .....	8	4	1	—	6
Carcases of which some part or organ was con- demned .....	46	56	—	—	98
Percentage of the num- ber inspected affected with tuberculosis .....	7.11		0.16	—	9.48

# FOOD AND DRUGS ACT.

## SUMMARY OF SAMPLES SUBMITTED FOR ANALYSIS.

INFORMAL SAMPLES				Nature of Sample	FORMAL SAMPLES					
Number Taken	Number Genuine	Adulter'd			Number Taken	Number Genuine	Adulter'd		Vendors Cautioned	Prosecutions
		Materially	Trivially or Doubtful				Materially	Trivially or Doubtful		
19	15	—	4	Milk	167	152	9	6	4	1
2	2	—	—	Lemon Cheese	—	—	—	—	—	—
1	1	—	—	Raspberry Syrup	—	—	—	—	—	—
6	3	1	2	Tinned Sild	—	—	—	—	—	—
5	4	—	1	„ Condensed Milk	—	—	—	—	—	—
2	2	—	—	„ Chicken and Rice Soup	—	—	—	—	—	—
1	1	—	—	„ Salmon	—	—	—	—	—	—
2	2	—	—	„ Lobster	—	—	—	—	—	—
1	1	—	—	Shredded Beef Suet	—	—	—	—	—	—
—	—	—	—	Margarine	5	5	—	—	—	—
—	—	—	—	Cheese	3	3	—	—	—	—
—	—	—	—	Lard	5	5	—	—	—	—
—	—	—	—	Butter	9	9	—	—	—	—
6	6	—	—	Tea	1	1	—	—	—	—
—	—	—	—	Dripping	2	2	—	—	—	—
1	1	—	—	Rice	—	—	—	—	—	—
1	1	—	—	Tapioca	—	—	—	—	—	—
1	1	—	—	Pearl Barley	—	—	—	—	—	—
1	1	—	—	Flaked Rice	—	—	—	—	—	—
1	—	—	1	Sago	—	—	—	—	—	—
4	4	—	—	Sugar	—	—	—	—	—	—
1	1	—	—	Ground Rice	—	—	—	—	—	—
1	1	—	—	Veal and Ham Pudding	—	—	—	—	—	—
2	2	—	—	Steak and Kidney Pudding	—	—	—	—	—	—
1	1	—	—	Tinned Asparagus	—	—	—	—	—	—
1	1	—	—	„ Fillets of Anchovies	—	—	—	—	—	—
1	1	—	—	„ Tomatoes	—	—	—	—	—	—
1	1	—	—	Betox Extract	—	—	—	—	—	—
1	1	—	—	Tinned Blackberries	—	—	—	—	—	—
2	1	—	1	„ Fruit Salad	—	—	—	—	—	—
1	1	—	—	„ Tomato Soup	—	—	—	—	—	—
3	3	—	—	„ Peas	—	—	—	—	—	—
2	2	—	—	Strawberry Jam	—	—	—	—	—	—
2	1	—	1	Tinned Brisling	—	—	—	—	—	—
1	1	—	—	Anchovic Paste	—	—	—	—	—	—
74	63	1	10	Carried forward .....	192	177	9	6	4	1

FOOD AND DRUGS ACT. (continued)

SUMMARY OF SAMPLES SUBMITTED FOR ANALYSIS.

INFORMAL SAMPLES				Nature of Sample	FORMAL SAMPLES					
Number Taken.	Number Genuine.	Adulter'd			Number Taken.	Number Genuine.	Adulter'd		Vendors Cautioned.	Prosecutions.
		Materially	Trivially or Doubtful.				Materially	Trivially or Doubtful.		
74	63	1	10	Brought forward .....	192	177	9	6	4	1
1	1	—	—	Dressed Crab	—	—	—	—	—	—
1	—	—	1	Baked Beans	—	—	—	—	—	—
3	3	—	—	Tinned Beans	—	—	—	—	—	—
2	2	—	—	„ Grape Fruit	—	—	—	—	—	—
1	1	—	—	„ Loganberries	—	—	—	—	—	—
1	1	—	—	„ Peaches	—	—	—	—	—	—
—	—	—	—	Bread and Butter	6	6	—	—	—	—
1	1	—	—	Tinned Apricots	—	—	—	—	—	—
1	1	—	—	Veal Stuffing	—	—	—	—	—	—
1	1	—	—	Primox Meat Extract	—	—	—	—	—	—
3	3	—	—	Tinned Cream	—	—	—	—	—	—
1	1	—	—	Browning	—	—	—	—	—	—
1	1	—	—	Grape Juice	—	—	—	—	—	—
1	1	—	—	Malt, Eggs and Milk	—	—	—	—	—	—
1	1	—	—	Pepper	—	—	—	—	—	—
1	1	—	—	Galantine of Pork	—	—	—	—	—	—
34	34	—	—	Ice Cream	—	—	—	—	—	—
1	1	—	—	Tinned Veal and Tomato	—	—	—	—	—	—
1	1	—	—	Sweets	—	—	—	—	—	—
1	1	—	—	Cream Mould Powder	—	—	—	—	—	—
1	1	—	—	Orange Spread	—	—	—	—	—	—
1	1	—	—	Sandwich Spread	—	—	—	—	—	—
1	1	—	—	Lobster Paste	—	—	—	—	—	—
2	2	—	—	Honey	—	—	—	—	—	—
1	1	—	—	Nut Milk Chocolate	—	—	—	—	—	—
—	—	—	—	Beef Sausage	1	—	—	1	—	—
—	—	—	—	Pork Sausage	1	1	—	—	—	—
—	—	—	—	Cooking Fat	1	1	—	—	—	—
4	4	—	—	Ground Almonds	—	—	—	—	—	—
2	2	—	—	Dessicated Coconut	—	—	—	—	—	—
2	2	—	—	Icing Sugar	—	—	—	—	—	—
1	1	—	—	Essence Green Ginger Wine	—	—	—	—	—	—
2	2	—	—	Mincemeat	—	—	—	—	—	—
3	3	—	—	Bread	—	—	—	—	—	—
151	139	1	11		201	185	9	7	4	1

**Part VI.**

**PREVALENCE OF, AND CONTROL OVER,  
INFECTIOUS AND OTHER DISEASES.**

## INFECTIOUS DISEASES.

**Diphtheria.**—The incidence of this disease continued to be very low until the beginning of November. Up to November 1st, 31 cases had been notified, and 11 of these were children admitted from other districts to a children's home in the Borough. During November and December, 50 cases of the disease were notified. Practically all these cases came from the area covered by three of the six central wards. The disease was severe, and although the organism responsible was typed only in two cases, both these proved to be of the "gravis" type, and the severity of symptoms in the majority of the other cases led one to believe that the more virulent organism was responsible.

The total number of patients notified was 81, and all but two of these were admitted to the Isolation Hospital for treatment. Six cases died, giving a mortality rate of 7%, which is higher than that usually experienced in the town.

The difficulties in the way of rapid diagnosis continue to be apparent, and the presence in the town of a number of cases of sore throat, due to streptococcal infection, added to these difficulties. Only a negligible number of patients had received anti-toxin prior to admission to hospital, and owing to the practice of waiting for the result of the examination of a throat swab before administering serum, many of the patients were in a grave condition by the time they reached the hospital. These difficulties in diagnosis are easily understandable, but even the examination of a throat swab sometimes fails to disclose the true nature of the complaint. The reason for this may be an insufficient swabbing of the throat or the overgrowth of the culture by other organisms. There can be no degree of safety for the patient until the rule that "when in doubt, give serum" is strictly observed. It follows that if it is necessary to take a throat swab to determine the clinical nature of a sore throat, then the doubt as to the diagnosis warrants the injection of serum at the time the swab is taken. The growth of membrane due to the severer type of organism is so rapid and the resulting toxaemia so great, that twelve hours may be sufficient to cross the borderline between safety and calamity.

It is necessary to make it very clear that the incidence of this disease during 1937 was not high and was not above the average, but the gravity of the disease, particularly in the last two months of the year, was very noticeable. Strenuous efforts, involving a great deal of time and disorganisation of routine work, were made to prevent a more widespread incidence, and these were in the main successful, but there was a persistence in the occurrence of isolated cases in certain schools after every effort had been made to eliminate infection, which was little short of malignant.

**Diphtheria Immunisation.**—It has become very clear that the only way to avoid outbreaks, small or large, lies in immunising the child population of the town. It is necessary to aim at the protection of as large a percentage of children, both under school age and of school age as possible, and it is considered that anything short of 50% will be of little value.

Since 1935 an Immunisation Clinic has been held weekly and parents of children in the Infants' Departments at the schools have been circularised inviting them to bring their children to the clinic. During the winter months while cases of the disease are occurring here and there, a fair measure of success is obtained, but during the summer little or no response is made. Actually 914 children had been immunised up to the end of December, 1937.

The percentage of immune children represented by this number is, insufficient and it has been decided to supplement the work by an arrangement with the general practitioners of the town. The Medical Officer of Health in his report on the Scheme gave two main reasons in support of the recommendation, namely (1) that with the aid of the general practitioners more cases would be dealt with, and (2) the practitioner would be able to influence his patients to have this work done not only when diphtheria cases are present in the town, but at other times also. The Health Committee adopted the scheme and arrangements were made for it to commence on the 1st May, 1938. Under it no cost will devolve upon parents ; the practitioner will carry out the work, as stipulated in the Scheme, which was finally completed only after consultation with the local branch of the British Medical Association, and be paid by the Corporation according to a scale of fees.

The majority of the general practitioners in the town have intimated that they are willing to co-operate in this work, and it is hoped that within the course of a few years the proportion of immunes among children under 14 years of age will be increased from its present figure of roughly 8% to 50% or more. It is considered that by effectively raising the proportion to this extent, the chances of any widespread outbreak would be materially reduced, with a consequent saving of life and damage to health.

**Scarlet Fever.**—Two hundred and nine cases were notified, and of these, 185 were isolated in hospital. The notified cases were less than last year and were scattered over the whole area without concentration in any locality. With few exceptions, the character of the disease was mild, but owing to the high incidence of measles in the Borough, it proved exceedingly difficult to prevent cross-infections of this disease. Three children came into the wards incubating measles with the result that eight other patients were infected despite the closest vigilance on the part of the staff. This complication has had the effect of raising the percentage of cases developing middle ear disease to 7% as compared with 3·6% in the previous twelve months. Five of the 13 children who developed this complication did so after the measles infection. Excluding these, the percentage figure for scarlet fever uncomplicated by measles was 4·3.

It is generally recognised to-day that scarlet fever is a mild disease, but the fact that even a mild attack of the disease may lead to prolonged ill-health or even disaster was clearly shown in two cases which were admitted.

One, a girl of 12 who passed through the acute stage with very little distress, developed acute endocarditis complicated by severe epistaxis, which required all the ingenuity of the medical staff to control effectively, and died some five months later as a result of the cardiac lesions.

The other, a man of 33, who exhibited a mild febrile reaction in the acute stage, developed acute rheumatism which persisted for many weeks, an attack of complete heart-block lasting for 24 hours, and later he required antroscopy for empyema of the right antrum of Highmore which was accompanied by an exacerbation of his rheumatism, necessitating a long period of convalescence before he was fit for discharge.

**Erysipelas.**—Twenty-six cases were notified and nine were treated in the Isolation Hospital. There were no deaths recorded as due to this disease.

**Measles.**—This complaint was again prevalent in the town. Eleven hundred and forty-eight cases were notified, but this does not express the full incidence, for only the first case occurring within two months in any particular household is notifiable. The greatest number of cases occurred in the last three months of the year. Two deaths occurred, and the higher coincidence of measles and diphtheria in the last two months was noticeable. Many of the children who were more acutely ill with the latter disease were measles convalescents.

Thirty-three cases of measles of more than average severity were admitted to the Isolation Hospital for treatment.

**Whooping Cough** was of low incidence. Only one hundred and thirty-five cases were notified with one death from broncho-pneumonia. Six children were admitted to the Isolation Hospital for treatment.

**Typhoid and Paratyphoid Fever.**—There were no cases in this district during the year. The one death from this disease shown in the Statistical Tables was in respect of a Southport resident who contracted the disease and died while on a visit to another part of the country.

**Cerebro-Spinal Fever, Encephalitis Lethargica and Acute Anterior Poliomyelitis.**—One case of encephalitis lethargica was notified. The inward transfers of deaths, too, revealed that a Southport resident died from this disease while staying in another town. There were no notifications of cerebro-spinal fever or acute anterior poliomyelitis (i.e. “spotted fever” and “infantile paralysis”).

**Smallpox.**—There were no cases of this disease. The number of babies vaccinated shows an increase over the previous year, namely 177 in 1937 as against 160 in 1936. Statutory declarations of conscientious objection to vaccination totalled 566 as compared with 532 in the previous year.

INCIDENCE RATE PER 1,000 POPULATION.

	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric.	Erysipelas.	Pneumonia
England and Wales .....	—	2·33	1·49	0·05	0·37	1·36
Southport .....	—	2·65	1·03	—	0·33	1·49

REMOVAL OF CASES OF INFECTIOUS DISEASE TO THE  
ISOLATION HOSPITAL.

The number of cases removed is shown in the table on page 63.  
No difficulty was experienced in securing adequate isolation. Infectious  
diseases treated in the borough Infectious Diseases Hospital during 1937  
are as follows :—

	Number Treated	Deaths
Scarlet Fever .....	185	—
Diphtheria .....	79	6
Bronchitis .....	—	—
Paratyphoid Fever B .....	—	—
Erysipelas .....	9	1
Puerperal Fever .....	2	1
Measles .....	33	—
German Measles .....	—	—
Chicken Pox .....	2	—
Pneumonia .....	10	1
Scabies .....	—	—
Tuberculosis .....	47	6
Miscellaneous .....	78	3
Whooping Cough .....	6	—
Diphtheria Carriers .....	36	—
Encephalitis Lethargica .....	—	—
Tuberculous Meningitis .....	—	—
Mumps .....	—	—
Puerperal Pyrexia .....	3	1
	<hr/>	<hr/>
	490	19
	<hr/>	<hr/>

CASES OF INFECTIOUS DISEASES NOTIFIED during the Year 1937.

Notifiable Disease	Number of cases notified Ages in years								Total cases notified in each locality					Total No. of cases removed to Hospital
	At all ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 upwards	1 Six Central Wards *	2 Scaris- brick and Sussex	3 Park and Birk- West	4 Hesketh	5 Birkdale N. E. S and Ainsdale	
Diphtheria .....	81	—	7	62	6	5	—	1	54	9	7	2	9	79
Erysipelas .....	26	—	—	—	2	10	9	5	10	4	4	1	7	9
Scarlet Fever .....	209	1	34	134	21	18	1	—	79	48	8	35	39	185
Puerperal Fever .....	3	—	—	—	—	3	—	—	—	2	—	—	1	2
Puerperal Pyrexia .....	7	—	—	—	2	5	—	—	—	6	1	—	—	3
Chicken Pox .....	300	5	62	215	11	7	—	—	80	147	9	21	43	2
Measles .....	1148	14	251	857	18	8	—	—	273	355	67	207	246	33
German Measles .....	93	2	17	70	3	1	—	—	22	14	3	13	41	—
Whooping Cough .....	134	8	58	65	2	1	—	—	21	25	12	20	56	6
Ophthalmia Neonatorum ..	5	5	—	—	—	—	—	—	3	1	1	—	—	—
Pneumonia .....	84	5	13	15	6	10	17	18	21	17	15	11	20	10
Influenzal Pneumonia .....	34	—	3	3	2	9	9	8	9	8	10	2	5	—
Encephalitis .....	1	—	—	—	—	—	1	—	1	—	—	—	—	—
	2125	40	445	1421	73	77	37	32	573	636	137	312	467	329

\*Estimated populations based on Registrar-General's figures.

**TUBERCULOSIS.**  
**NEW CASES AND MORTALITY DURING 1937.**

Age Periods	New Cases				Deaths			
	Pulmonary M.	F.	Non-Pulm'ry M.	F.	Pulmonary M.	F.	Non-Pulm'ry M.	F.
0- .....	—	—	—	—	—	—	—	—
1- .....	—	1	1	—	—	—	1	2
5- .....	1	—	—	1	1	—	—	—
10- .....	1	1	1	—	1	—	—	—
15- .....	3	3	—	—	—	1	1	—
20- .....	2	2	—	2	2	2	—	—
25- .....	3	8	1	2	1	6	—	1
35- .....	6	7	1	—	5	—	—	—
45- .....	7	4	1	1	4	2	—	—
55- .....	5	2	—	1	5	4	—	1
65 and upwards .....	1	—	—	1	—	—	—	—
Totals .....	29	28	5	8	19	15	2	4

The number of new cases of Tuberculosis which came to the notice of the Department during the year was 70.

Of the cases notified, 57 were suffering from Pulmonary Disease. The age and sex of these patients are shown in the table above. The second half of this table gives similar information regarding the persons who died of Tuberculosis during the year.

**NON-PULMONARY TUBERCULOSIS.**

**TUBERCULOSIS OF BONES AND JOINTS.**—Three cases were notified and received treatment as follows :—

- (1) Tuberculosis of the Spine. Treated first at the Southport Infirmary and later transferred to the Liverpool Open-Air Hospital for Children at Leasowe.
- (2) Tuberculosis of the Bones of the Wrist. Was admitted to the Liverpool Northern Hospital.
- (3) A second case of Tuberculosis of the Wrist Joint, was treated at the Southport Infirmary.

**TUBERCULOUS PERITONITIS.**—Two cases. One was admitted to the Southport Infirmary for treatment and later transferred to New Hall Sanatorium ; the second was treated at home by the private doctor and died a few days after the notification was received.

**TUBERCULOUS ADENITIS.**—Cervical glands 4, axillary glands 1, and mammary gland 1.

Four patients were admitted to the Southport Infirmary for operative treatment followed by sun-ray therapy.

One, the case of axillary adenitis, was admitted to the New Hall Sanatorium for treatment, and the sixth case, one of cervical adenitis, was treated at home.

**TUBERCULOUS KIDNEY.**—One notification. The patient was admitted to a Liverpool nursing home for treatment and did not come under the care of this Department.

TUBERCULOUS MENINGITIS.—One notification. The patient died two days after admission to the Southport Infirmary.

#### **TUBERCULOSIS DISPENSARY.**

Of the 70 new cases notified in the year, 81% were examined at the Dispensary, this being a slight increase compared with last year. The number of cases on the Dispensary Register at the end of the year was 215, and of this number 105 were found to have sputum containing tubercle bacilli.

#### **CONTACTS.**

Persons who had been in contact with cases of Phthisis made 197 attendances at the Contact Clinics, and one case of Pulmonary Tuberculosis with a negative sputum was discovered.

#### **NEW HALL SANATORIUM.**

On the 31st December, 1936, there were 28 patients in the Sanatorium, and during 1937 49 new cases were admitted, making a total of 77. The following table gives details of the admissions and discharges during the year :

In Sanatorium, 31st December, 1936	Admitted	Discharged	Died	In Sanatorium, 31st December, 1937
28	49	41	12	24

Six patients suffering from Pulmonary Tuberculosis were discharged from the Sanatorium with the disease quiescent, 31 with the disease not quiescent, and 12 advanced cases died. Two patients with non-pulmonary tuberculosis were discharged, one with the disease quiescent, and one improved.

#### **ARTIFICIAL PNEUMO-THORAX.**

Of the 19 cases treated, four are now following their usual occupation, three have improved and one died. There were 11 cases still under treatment at the end of the year.

#### **PHRENIC EVULSION.**

The operation of Phrenic Evulsion was performed by Mr. Hugh Reid, the visiting surgeon, in five cases. One patient had previously been treated by artificial pneumo-thorax. In all cases the results are satisfactory.

#### **INJECTIONS OF GOLD CHLORIDE.**

This treatment has been continued again during the year, with very good results. Fifteen patients received a course of weekly injections, and greatly improved. In only one case was it impossible to complete the treatment owing to persistent loss of weight.

#### **X-RAY EXAMINATION.**

During the year, 331 X-ray examinations were made, 191 being in respect of patients in the Sanatorium, and 140 of patients sent from the Dispensary or the Contact Clinic.

#### **LABORATORY.**

The number of sputum specimens examined during the year was 533, of which 230 were found to contain tubercle bacilli.

The average length of in-patient treatment in the Sanatorium was  $3\frac{3}{4}$  months ; the average duration of stay for 1936 was  $5\frac{3}{4}$  months.

**CARBON ARC AND KROMAYER LAMP.**  
**TUBERCULOSIS.**

Disease	Cases	Average length of treatment	Condition on 31st December, 1937
Tuberculous Adenitis	11	4½ months	4 cured 5 improved 2 no improvement
Lupus .....	10	9 months	1 cured 7 improved 2 no improvement
T.B. Discharging Sinus	1	2 months	1 cured

**MATERNITY AND CHILD WELFARE.**

Disease	Cases	Average length of treatment	Condition on 31st December, 1937
Malnutrition .....	1	1 month	1 improved
Insomnia .....	3	1⅔ month	3 improved
Bronchitis .....	1	2 months	1 cured
Pinks Disease.....	1	3 months	1 cured
Cervical Adenitis .....	5	4 months	1 cured 4 improved
Acne Vulgaris .....	7	3 months	3 cured 3 improved 1 much improved
Rickets .....	6	2⅓ months	6 improved
Alopecia .....	4	5¾ months	1 cured 2 improved 1 no improvement
Psoriasis .....	1	4 months	1 improved
Ulcer of Leg .....	1	2 months	1 improved
Debility .....	2	4½ months	2 cured

# CARBON ARC AND KROMAYER LAMP.

## SCHOOL MEDICAL CASES.

Disease	Cases	Length of treatment	Condition on 31st December, 1937
Adenitis .....	7	3½ months	2 cured 4 improved 1 no improvement
Keratitis .....	1	2 weeks	1 removed to Hospital
Tuberculous Adenitis	3	4½ months	3 improved
Bronchial Catarrh .....	1	5 months	1 cured
Debility .....	8	2¼ months	8 cured
Malnutrition .....	4	3 months	1 cured 2 improved 1 no improvement
Asthma .....	1	6 months	1 improved
Rheumatism .....	2	3 months	1 cured 1 improved
Gingivitis .....	1	2 weeks	1 no improvement
Chorea.....	2	2½ months	2 improved

# TUBERCULOSIS SCHEME.

Return showing the work of the Dispensary (or Dispensaries) during the year 1937.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.				GRAND TOTAL.
	Adults.		Children.		Adults.		Children.		Adults.		Children		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
A.—NEW CASES examined during the year (excluding contacts):													
(a) Definitely tuberculous .....	20	22	1	1	3	5	1	1	23	27	2	2	54
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	—	—	—	—	—
(c) Non-tuberculous .....	24	38	3	4	—	—	3	1	24	38	6	5	73
B.—CONTACTS examined during the year :—													
(a) Definitely tuberculous .....	1	1	—	1	—	—	—	—	1	1	—	1	3
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	—	—	—	—	—
(c) Non-tuberculous .....	16	26	18	15	—	—	—	—	16	26	18	15	75
C.—CASES written off the Dispen- sary Register as :—													
(a) Recovered .....	6	4	2	2	1	3	12	9	7	7	14	11	39
(b) Non-tuberculous (includ- ing any such cases previous- ly diagnosed and entered on the Dispensary Register as tuberculous) .....	40	64	21	19	—	—	3	1	40	64	24	20	148
D.—NUMBER OF CASES on Dispen- sary Register on December 31st :—													
(a) Definitely tuberculous .....	81	55	—	4	12	20	23	20	93	75	23	24	215
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	—	—	—	—	—

1. Number of cases on Dispensary Register on January 1st .....	229	2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years .....	16
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases “lost sight of” .....	16	4. Cases written off during the year as Dead (all causes) .....	32
5. Number of attendances at the Dispensary (including Contacts) .....	1,230	6. Number of Insured Persons under Domiciliary Treatment on the 31st December .....	124
7. Number of consultations with medical practitioners :— (a) Personal .....	30	8. Number of visits by Tuberculosis Officers to homes (including personal consultations) .....	25
(b) Other .....	180		
9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes .....	5,662	10. Number of :— (a) Specimens of sputum, etc., examined .....	241
		(b) X-ray examinations made in connexion with Dispensary work .....	140
11. Number of “Recovered” cases restored to Dispensary Register, and included in A(a) and A(b) above .....	—	12. Number of “T.B. plus” cases on Dispensary Register on December 31st .....	105

## VENEREAL DISEASES.

### Report of the Medical Officer in Charge.

At the close of 1937, there were 423 patients under treatment. A total of 14,897 attendances were made during the twelve months under review.

The classification of the patients treated was as follows :—

	Male		Female		Total
Syphilis .....	14	.....	17	.....	31
Gonorrhoea .....	71	.....	51	.....	122
Non-Venereal .....	44	.....	35	.....	79
Transferred from other clinics .....	5	.....	7	.....	12
	134	.....	110	.....	244

Thirty-six men and 39 women failed to attend a sufficient length of time to ensure the completion of the treatment, and 43 patients were transferred for treatment to other clinics or to private practitioners.

During the year, 91 male patients and 57 female patients were discharged cured.

It will be seen that there was an increase in the number of attendances from 12,576 in 1936 to 14,897. This increase is almost entirely due to the discovery and treatment of a larger number of female patients suffering from Gonorrhoea. This increase is satisfactory, in as much as, one of the greatest difficulties in combating the spread of this disease is the inability to trace the origin in primary infections which are more frequently transmitted by the female.

There has been a great reduction in the numbers of early and secondary cases of syphilis. This reduction of cases of the most contagious forms of the disease is due to modern methods of early diagnosis and to the reliability of modern treatment, both easily available to any competent medical practitioner.

Ten expectant women were admitted, eight of whom were able to receive lengthy ante-natal treatment. The babies of these eight mothers were all healthy at birth, whereas the infants born to two mothers who had received no ante-natal treatment showed definite signs of congenital syphilis. One infant died as a result of congenital disease.

OPHTHALMIA NEONATORUM.—Five infants were admitted suffering from this complaint, which is one of the commonest causes of blindness and after treatment over lengthy periods were discharged completely cured and free from all possible after-effects.

In order to prevent the catastrophe of congenital disease in the infant, it is the opinion of the Medical Officer in Charge that the presence of active or latent venereal disease should be eliminated by careful ante-natal investigation in all cases.

The importance of early treatment, and treatment pursued to its completion is still not fully recognised, and a campaign of discreet propaganda which will place the facts clearly before those who will benefit by such knowledge is advocated.

# VENEREAL DISEASES

RETURN relating to all persons who were treated at the Treatment Centre at Southport during the year ended the 31st Dec., 1937.

	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than Venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals
1. Number of cases on 1st January under treatment or observation .....	55	125	—	—	177	40	13	16	245	181	426
2. Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection .....	2	2	—	—	9	6	—	—	11	8	19
3. Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from :—											
Syphilis, primary .....	2	1	—	—	—	—	—	—	2	1	3
„ secondary .....	—	3	—	—	—	—	—	—	—	3	3
„ latent in 1st year of infection .....	3	4	—	—	—	—	—	—	3	4	7
„ all later stages .....	3	5	—	—	—	—	—	—	3	5	8
„ congenital .....	6	4	—	—	—	—	—	—	6	4	10
Soft Chancre .....	—	—	—	—	—	—	—	—	—	—	—
Gonorrhoea, 1st year of infection .....	—	—	—	—	65	47	—	—	65	47	112
Gonorrhoea, later .....	—	—	—	—	6	4	—	—	6	4	10
Conditions other than venereal .....	—	—	—	—	—	—	44	35	44	35	79
4. Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection .....	2	2	—	—	3	5	—	—	5	7	12
TOTALS OF ITEMS 1, 2, 3 AND 4 .....	73	146	—	—	260	102	57	51	390	299	689
5. Number of cases discharged after completion of treatment and final tests of cure (see Item 15).....	3	3	—	—	42	24	46	30	91	57	148
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from :—											
Syphilis, primary .....	—	—	—	—	—	—	—	—	—	—	—
„ secondary .....	1	1	—	—	—	—	—	—	1	1	2
„ latent in 1st year of infection .....	2	6	—	—	—	—	—	—	2	6	8
„ all later stages .....	4	6	—	—	—	—	—	—	4	6	10
„ congenital .....	1	4	—	—	—	—	—	—	1	4	5
Soft Chancre .....	—	—	—	—	—	—	—	—	—	—	—
Gonorrhoea, 1st year of infection .....	—	—	—	—	11	12	—	—	11	12	23
Gonorrhoea, later .....	—	—	—	—	4	5	—	—	4	5	9
7. Number of cases which ceased to attend after completion of treatment but before final tests of cure (see Item 15).....	8	—	—	—	5	5	—	—	13	5	18
8. Number of cases transferred to other Centres or to Institutions, or to care of private practitioners....	7	8	—	—	23	5	—	—	30	13	43
9. Number of cases remaining under treatment or observation on 31st December .....	47	118	—	—	175	51	11	21	233	190	423
TOTALS OF ITEMS 5, 6, 7, 8 AND 9 .....	73	146	—	—	260	102	57	51	390	299	689
10. Number of cases in the following stages of syphilis included in Item 6 which failed to complete one course of treatment :—											
Syphilis, primary .....	—	—	—	—	—	—	—	—	—	—	—
„ secondary .....	—	1	—	—	—	—	—	—	—	1	1
„ latent in 1st year of infection .....	1	4	—	—	—	—	—	—	1	4	5
„ all later stages .....	3	—	—	—	—	—	—	—	3	—	3
„ congenital .....	1	3	—	—	—	—	—	—	1	3	4
11. Number of attendances : —											
(a) for individual attention of the medical officers .....	699	694	—	—	1694	441	94	19	2487	1154	3641
(b) for intermediate treatment, <i>e.g.</i> , irrigation, dressing .....	—	403	—	—	5905	4602	181	165	6086	5170	11256
TOTAL ATTENDANCES .....	699	1097	—	—	7599	5043	275	184	8573	6324	14897
12. In-patients :—											
(a) Total number of persons admitted for treatment during the year .....	21	19	—	—	13	25	8	7	42	51	93
(b) Aggregate number of “ in-patient ” days of treatment given.....	153	303	—	—	149	666	204	167	506	1136	1642
	Under 1 year		1 and under 5 years		5 and under 15 years		15 years and over		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
13. Number of cases of congenital syphilis in Item 3 above classified according to age periods.....	2	1	—	—	4	2	—	1	6		4

**VENEREAL DISEASES.—(Continued.)**

14. Chief preparations used in treatment of Syphilis	ARSENICAL		Mercury	Bismuth
	Approved Arseno- benzene Compounds	Others		
	Novarsenobillon, Kharsulphan Silversalvarsen	Triparsamide		
(a) Names of preparations .....				Bisoxyl
(b) Total number of injections given (out- patients and in-patients).....	565	45	—	432

  

15. Pathological Work :—	MICROSCOPICAL		Cultural For Gonorrhoea	SERUM		Cerebro- Spinal Fluid	Others for diagnosis of Venereal Disease
	For Syphilis	For Gonorrhoea		For Syphilis	For Gonorrhoea		
(a) Number of specimens examined at and by the medical officer of the Treat- ment Centre .....	—	60	—	—	—	—	—
(b) Number of specimens from patients attending at the Centre sent for exami- nation to an approved laboratory.....	—	965	2	308	—	9	74

**STATEMENT SHOWING THE SERVICES RENDERED AT THE TREATMENT CENTRE DURING THE YEAR,  
CLASSIFIED ACCORDING TO THE AREAS IN WHICH THE PATIENTS RESIDED.**

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales), to be inserted in these headings.	South- port	Lanes.	London	Southamp- ton	Rother- ham	Birken- head	Total
A. Number of cases in Item 3 from each area found to be suffering from :—							
Syphilis .....	21	8	2	—	—	—	31
Soft Chancre .....	—	—	—	—	—	—	—
Gonorrhoea .....	110	9	—	1	1	1	122
Conditions other than Venereal .....	79	—	—	—	—	—	79
TOTAL .....	210	17	2	1	1	1	232
B. Total number of attendances of all patients re- siding in each area .....	14761	80	21	26	3	6	14897
C. Aggregate number of “ In-patient days ” of all patients residing in each area .....	1317	325	—	—	—	—	1642

(Signed) H. BARDSLEY.  
Medical Officer of the Treatment Centre.

## BLIND PERSONS' ACT, 1920 and 1938.

On the Register at the 31st December, 1936 ..... 146

Removed from the register during the year :—

2 females left the town

1 male left the town.

8 females deceased.

2 males deceased. 13

133

Added to the Register during the year :—

14 females

10 males 24

157

	Under 16	16—21	22—49	50—69	70 and over	Total
Males .....	2	4	11	25	29	71
Females .....	3	4	9	25	45	86

157

Visits paid by the Home Teacher and Assistant to blind persons in their own homes ..... 3,750

Classes held for instruction ..... 77

Social gatherings held during the winter months ..... 21

Resident in Institutions for the Blind ..... 14

	Males	Females
School for the Blind, Wavertree, Liverpool .....	1—10 yrs.	
School for the Blind, Hardman Street, Liverpool .....	1—17 yrs.	
School for the Blind, Hardman Street, Liverpool....	1—18 yrs.	
Henshaw's Institution for the Blind, Old Trafford .....	1—17 yrs.	
The Royal Normal College for the Blind, Upper Norwood, London .....	1—18 yrs.	1—18 yrs.
Godfrey Ermen Memorial Home, Roe Lane, Southport .....	1—61 yrs.	1—54 yrs.
	1—68 yrs.	1—73 yrs.
		1—74 yrs.
The Elms, Pendleton, Manchester .....		1—77 yrs.
		1—79 yrs.
		1—81 yrs.

Grants have been made during the year to the amount of ..... £2,429

Persons receiving weekly grants ..... 80

Handicraft classes are held at 44, Hoghton Street every Monday and Tuesday afternoon from 1-30 p.m. until 5-0 p.m. Crafts taught are all the different kinds of basketry, cane, rush and seagrass seating, raffia work, knitting, etc. Braille reading and writing, Moon reading and typewriting are also taught.

HOME WORKERS.—There is one fully qualified pianoforte tuner and repairer, one chair caner and one basket maker in the approved Home Workers' Scheme. There are also two basket makers and numerous tea-agents.

SOCIAL ACTIVITIES.—Socials are held fortnightly, occasionally weekly, during nine months in the year.

The annual outing to Lytham took place on the 29th July, This was for all the blind people resident in the Borough.

The annual outing of the members of the handicraft class took place on the 26th May, this trip being paid for by the members themselves, and followed an invitation by a friend of the Southport blind people who had removed to Hooton.

Eight blind people were given a week's holiday in the Isle of Man at the expense of the Blind Persons' Act Committee. All arrangements were made by the Merseyside Holiday Fund for the Blind.

All Southport blind people have been provided with wireless sets. The Blind Persons' Act Committee have made themselves responsible for the maintenance and upkeep of these sets.

Thanks are due to the Rotary Club for arranging the annual outing, To H, Mr. Cross of the Southport Infirmary, the Transport Department for the free bus passes, and to Miss Mace, a voluntary worker, for the great deal of time she devotes to the blind people of Southport.

**Part VII.**

**PROPAGANDA.**

## PROPAGANDA.

A list of lectures given during the year 1937 is appended hereto. They were fairly well attended and there is no doubt that this part of the propaganda work is having good results.

A good deal was done in Southport to assist in the National Health Campaign which was commenced in October, 1937, and lasted throughout the winter months. Southport's effort can be scheduled under three categories, namely (a) Lectures, (b) Newspaper articles and (c) Distribution of material supplied by the Central Council for Health Education, which was entrusted with the phenomenal task of distributing posters, leaflets, etc., throughout the country. For the purpose of record, a list of the newspaper articles and lectures are included in this Report. Posters were exhibited from time to time in different parts of the town, and at the commencement of the Campaign arrangements were put into operation for the distribution month by month of the Central Council's publicity material to the schools, welfare centres, libraries, shops and transport department, etc. A word of appreciation and thanks is not out of place here for those mediums mentioned above for their kind assistance in the work, and also to the newspaper proprietors for agreeing to publish the various articles sent to them from the Health Department.

### LIST OF NEWSPAPER ARTICLES.

1. Use Your Health Services .....	2nd October, 1937
2. The National Health Campaign .....	9th October, 1937
3. Personal Striving After Health .....	16th October, 1937
4. The Infirmary's Contribution ..	30th October, 1937
5. Maternity and Child Welfare .....	6th November, 1937
6. Dispelling Anxieties of Motherhood .....	13th November, 1937
7. Mothercraft Has to be Learned .....	18th November, 1937
8. Mothercraft Made Easy .....	4th December, 1937
9. The Health of the Pre-School Child .....	11th December, 1937
10. District Nursing .....	18th December, 1937
11. The Bradstock-Lockett Home .....	24th December, 1937

### LIST OF LECTURES.

Jan. 27th	First Aid in the Home .....	Dr. Duncan
Feb. 3rd	Cookery Demonstration .....	Miss Hendy and Miss McLoughlin
Feb. 17th	Abdominal Conditions in Children .....	Dr. Campbell
March 3rd	Foods for Health .....	Miss L. Wilkinson
Oct. 13th	Use Your Health Services .....	Dr. FitzGerald
Oct. 27th	The Work of a Voluntary Hospital .....	Mr. J. H. Cross
Nov. 10th	Maternity Services .....	Dr. Butters
Nov. 24th	Demonstration on Methods of Infant Care.	
Dec. 8th	A Study of Immunity .....	Dr. Ackerman

## ADDITIONAL LECTURES.

Maternity Services	Townswomen's Guild .....	Dr. Butters
Teeth	Crossens Centre .....	Miss Willder
Municipal Midwifery Service	Crossens Centre .....	Dr. Butters
School Medical Service	Southport Branch, National Union of Teachers .....	Dr. Hood
Children at School	Hampton Road Welfare Centre .....	Dr. Hood
X-rays and Medicine	Christ Church Fellowship .....	Dr. Hood
Children at School	Crossens Welfare Centre .....	Dr. Hood
Tuberculosis	Southport Trades and Labour Council .....	Dr. Hood
Milk	Southport Round Table .....	Dr. Hood
Factory Acts—Past and Present	Southport Round Table .....	Dr. Hood
Nursing Services	Southport and Birkdale Nursing Society .....	Dr. Hood
Public Health Services	Hawkshead Street Congregational Church Fellowship .....	Dr. Hood



**Part VIII.**

**METEOROLOGY.**

# METEOROLOGY.

## LOCAL WEATHER.

1937 was the sixth successive year with a mean temperature above the local average. North-westerly winds, however, were more prevalent than any others, and those from the south-west proved remarkably deficient. The year, which was also notable on account of its lack of sunshine, was, nevertheless, extremely dry. It was at the same time very calm.

## TEMPERATURE OF THE AIR.

1937	Mean Temperature (Bedford Rd. Park) Degrees	Deviation from Normal Degrees	Absolute Extremes (Bedford Rd. Park) Highest Degrees	Lowest Degrees	Mean Daily Range of Temp. Degrees
January .....	41·7	..... + 2·1	..... 56	..... 25	..... 9·3
February .....	41·9	..... + 2·2	..... 53	..... 31	..... 9·1
March .....	39·1	..... — 2·9	..... 56	..... 26	..... 11·6
April .....	48·4	..... + 2·5	..... 62	..... 31	..... 13·0
May .....	53·3	..... + 1·6	..... 75	..... 35	..... 15·8
June .....	56·9	..... + 0·1	..... 70	..... 39	..... 12·4
July .....	60·5	..... + 0·7	..... 77	..... 46	..... 12·5
August .....	61·6	..... + 2·2	..... 82	..... 44	..... 17·0
September .....	56·2	..... + 0·4	..... 74	..... 40	..... 13·8
October .....	50·4	..... + 0·8	..... 67	..... 34	..... 13·0
November .....	42·0	..... — 1·5	..... 57	..... 25	..... 11·8
December .....	37·7	..... — 2·7	..... 55	..... 21	..... 9·8
	—	—	—	—	—
The Year .....	49·1	..... + 0·4	..... 82	..... 21	..... 12·4
	=====	=====	=====	=====	=====

During the year, only three months had mean temperatures below the average, viz., March, November and December. March was one of the coldest months of that name experienced since records were commenced. January, February, April and August were warm, day temperatures during the latter month exceeding 74 degrees for six consecutive days, and reaching 82 degrees on 2nd August. There were no really outstanding low temperatures, the absolute minima being 21 degrees in the shade, and 15 degrees on the grass, both on 10th December. Thunder was heard on one more day than usual, but the storms on all occasions were very light in character, and occurred chiefly in March, August and September.

BRIGHT SUNSHINE.

1937	Duration of Sunshine Hours	Deviation from Normal Hours	Number of Sunless Days	Forenoon Sunshine per cent. of Total for all Hours
January	32·1	— 12·9	15	55·5
February	60·7	— 5·8	10	47·8
March	106·0	— 13·9	6	50·6
April	117·7	— 49·4	4	49·0
May	207·5	+ 2·8	1	47·9
June	168·5	— 45·2	1	47·5
July	134·8	— 66·1	2	48·1
August	182·9	+ 6·3	—	43·9
September	143·3	+ 4·4	2	46·1
October	81·9	— 15·4	9	47·7
November	70·4	+ 15·5	12	54·8
December	38·1	+ 2·2	11	52·0
The Year	1343·9	— 177·5	73	48·1

A most pronounced feature of the year, as the above figures show, was its lack of sunshine, the deficiency amounting to 177 hours, which was the more surprising because 1936 had been abnormally dull. Compared with the average, November proved the sunniest month. July was the dullest month of that name, excepting July, 1920, since the local records commenced 45 years ago. The sunniest day of the year was 15th June, with 15·2 hours.

RAINFALL.

1937	Total Rainfall (Hesketh Park) Inches	Deviation from Normal Inches	Number of days with Rain	Duration of Definite Rainfall Hours
January	1·63	— 1·17	19	30·8
February	4·17	+ 2·08	21	94·8
March	1·38	— 0·78	18	30·0
April	2·85	+ 1·03	16	74·7
May	1·90	— 0·28	10	37·3
June	1·87	— 0·36	12	29·9
July	1·66	— 1·29	15	21·5
August	1·54	— 2·10	9	18·2
September	1·91	— 1·25	15	25·3
October	2·42	— 1·40	12	35·7
November	1·45	— 1·82	10	33·6
December	2·22	— 0·96	15	40·5
The Year	25·00	— 8·30	172	472·3

1937	Amount of Rainfall per Hours Duration of each Wind							
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
Inches	·0017	·0023	·0036	·0025	·0046	·0053	·0020	·0021

In spite of its unusual dullness, 1937 was one of the driest years on record, having a total deficiency of 8·3 inches of rain. The only two months with an excess, were February and April, normally the two driest months of the year. Of the rest, August, usually one of the wettest months, had the greatest deficiency. February had the largest number of days with rain, and August the smallest. The greatest daily fall was 0·83 inch on 13th August. An absolute drought, lasting for 19 days, and creating a record, occurred in October.

**HUMIDITY AND SUBSOIL WATER LEVEL AT BEDFORD ROAD PARK.**

1937	Humidity of the Air at 9 a.m. % of Saturation	Deviation from Normal % of Saturation	Humidity of the Air at 3 p.m. % of Saturation	Mean Level of Subsoil Water *Inches
January .....	85 .....	0 .....	80 .....	64·9
February .....	84 .....	0 .....	79 .....	65·4
March .....	78 .....	— 3 .....	71 .....	59·5
April .....	78 .....	+ 2 .....	70 .....	64·2
May .....	75 .....	+ 2 .....	68 .....	65·4
June .....	74 .....	+ 1 .....	70 .....	69·1
July .....	77 .....	+ 2 .....	72 .....	72·8
August .....	74 .....	— 3 .....	68 .....	77·0
September .....	75 .....	— 3 .....	67 .....	80·8
October .....	84 .....	+ 2 .....	75 .....	(84·2)
November .....	86 .....	0 .....	78 .....	†11·0
December .....	89 .....	+ 2 .....	85 .....	(83·0)
The Year .....	80 .....	0 .....	74 .....	00·0

\*Distance below well-mouth.      †Well dry.

Although the year was so dull, the mean relative humidity for the twelve months was normal. In March, August and September the air was decidedly drier than usual.

After a slow rise during the early Spring, the subsoil water level fell steadily, reaching an unprecedentedly low level in the late Autumn, when the Bedford Road Park Observation Well, seven feet deep, was entirely without water for nearly two months.

# WIND DIRECTION AND VELOCITY.

	Duration of the Different Winds (in percentages)								Mean Hourly Velocity
	N. %	N.E. %	E. %	S.E. %	S. %	S.W. %	W. %	N.W. %	Miles
1937									
January .....	1	1	16	29	20	10	18	5	18.1
February .....	5	1	5	13	14	14	23	25	19.6
March .....	11	15	25	19	7	3	4	16	12.9
April .....	4	5	23	14	9	7	17	21	12.9
May .....	6	8	10	20	13	5	20	18	11.0
June.....	7	2	6	5	10	10	21	39	13.5
July .....	3	1	4	9	12	9	29	33	13.2
August .....	8	3	14	19	10	3	14	29	9.7
September .....	9	6	7	14	16	15	21	12	12.2
October .....	5	12	23	21	10	5	11	13	11.2
November .....	16	12	23	23	12	3	3	8	9.8
December .....	25	15	10	20	18	3	5	4	11.0
The Year .....	8	7	14	17	13	7	15	19	12.9

# DEVIATIONS FROM NORMAL OF THE ABOVE.

	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Hourly Velocity
	%	%	%	%	%	%	%	%	Miles
1937									
January .....	— 5	— 3	+ 8	+ 8	+ 5	— 8	— 2	— 3	+ 0.8
February .....	— 2	— 6	— 7	— 9	+ 2	— 1	+ 7	+16	+ 3.4
March .....	+ 3	+ 6	+12	+ 4	— 5	—11	—14	+ 5	— 2.8
April .....	— 3	— 5	+11	+ 3	0	— 6	— 4	+ 4	— 2.8
May .....	0	— 1	— 7	+ 8	+ 3	— 6	+ 2	+ 1	— 2.2
June .....	+ 2	— 6	— 8	— 5	+ 3	0	— 3	+17	— 0.8
July .....	— 2	— 3	— 6	— 1	+ 3	— 3	+ 1	+11	— 0.5
August .....	+ 3	— 1	+ 5	+ 6	— 1	— 9	—15	+12	— 4.6
September .....	+ 2	— 1	— 6	— 2	+ 5	+ 5	+ 1	— 4	— 1.6
October .....	— 2	+ 4	+11	+ 1	— 5	— 7	— 4	+ 2	— 3.2
November.....	+ 7	+ 4	+12	+ 2	— 1	—10	—13	— 1	— 5.6
December .....	+19	+ 9	— 1	— 2	+ 2	—11	—11	— 5	— 5.2
The Year .....	+ 2	0	+ 2	+ 1	+ 1	— 6	— 5	+ 5	— 2.1

The deficiency of south-west winds was almost continuous ; but north-westerly, northerly and easterly currents were in excess of the normal. North-west winds were above their average frequency each month from February to August, and also in October. Gales were infrequent, not one occurring after March, and the year was one of the calmest on record. November was the calmest month of that name in the local records.

GEORGE A. LIDSTER, F.R.Met.S.,  
 THE FERNLEY OBSERVATORY, Borough Meteorologist.  
 SOUTHPORT.

# ATMOSPHERIC POLLUTION.—COMPARATIVE STATISTICS.

Monthly Means, at various places, for the Year April, 1936 to March, 1937.

In English Tons per Square Mile.

STATIONS	Rainfall, (Per Pollution Gauge). In milli- metres	Insoluble Matter			Total Insol- uble Matter	Total Soluble Matter,	TOTAL SOLIDS	Included in Soluble Matter		
		Tar	Carbon- aceous other than Tar	Grit, (as Ash)				Sul- phates (SO <sub>3</sub> )	Chlo- rine (Cl)	Am- monia (NH <sub>3</sub> )
Southport :										
Hesketh Park .....	73	0.10	1.43	1.53	3.06	6.68	9.74	1.17	2.42	0.03
Edinburgh :										
Bruntsfield House .....	55	0.51	3.29	8.90	12.70	7.80	20.50	1.81	0.89	0.38
Leith Links .....	48	0.43	2.58	6.07	9.08	6.91	15.99	1.40	0.69	0.18
St. Andrew's Sq. ....	48	0.56	3.85	9.49	13.90	6.81	20.68	1.71	0.71	0.20
Glencorse .....	64	0.20	0.87	1.02	2.09	6.30	8.39	1.07	0.97	0.10
Glasgow :										
Alexandra Park .....	74	0.36	5.61	10.58	16.55	12.42	28.97	3.37	2.17	0.33
Bellahouston Park .....	75	0.10	1.94	4.28	6.32	9.24	15.56	2.27	1.71	0.13
Belvidere Hosp. ....	138	0.00	0.61	1.05	1.66	9.97	11.65	1.73	2.24	0.03
Botanic Gardens .....	75	0.20	2.96	6.58	9.74	9.34	19.08	2.45	1.20	0.13
Glasgow Cross .....	71	0.28	4.49	10.20	14.97	12.83	27.80	3.34	2.35	0.36
Queen's Park .....	71	0.10	2.24	4.18	6.52	8.72	15.24	1.94	1.43	0.10
Richmond Park .....	67	0.31	5.10	9.13	14.54	10.07	24.61	2.91	1.43	0.23
Ruchill Hosp. ....	86	0.13	2.81	6.50	9.44	11.76	21.20	2.68	2.27	0.13
Ruchill Park .....	75	0.28	5.53	6.20	12.01	10.48	22.49	2.50	1.79	0.20
Tollcross Park .....	63	0.13	2.93	6.09	9.15	8.70	17.82	2.04	1.43	0.15
Victoria Park .....	77	0.15	3.29	5.79	9.23	9.81	19.05	2.35	1.91	0.13
Ashington :										
Hirst Park .....	62	0.41	2.78	5.36	8.55	11.60	20.15	2.83	1.91	0.26
Wallsend :										
The Rectory .....	67	0.36	3.21	4.46	8.03	8.82	16.80	1.79	1.96	0.18
Newcastle-on-Tyne :										
Town Moor .....	80	0.38	3.54	4.18	8.10	13.26	21.39	2.88	2.01	0.33
Welbeck Res'voir .....	57	0.41	3.62	6.60	10.63	10.09	20.73	2.50	2.07	0.20
Westgate Cemet'y .....	64	0.43	6.09	7.37	13.89	9.25	23.13	2.63	1.66	0.20
Shipley .....	73	0.33	3.03	6.35	9.71	8.55	18.26	1.91	1.61	0.18
Bradford :										
Central .....	87	0.51	4.26	8.49	13.26	11.94	25.19	2.96	2.96	0.15
North .....	77	0.38	2.14	2.81	5.33	8.93	14.25	1.89	1.84	0.08
Leeds :										
Headingley .....	70	0.10	2.07	3.21	5.38	5.99	11.37	1.15	1.63	0.10
Hunslet .....	59	0.23	4.92	10.15	15.30	8.85	24.12	2.04	1.76	0.10
Park Square .....	62	0.23	5.53	14.41	20.17	12.44	32.56	2.38	2.63	0.10
Temple Newsam .....	56	0.08	2.19	2.86	5.13	5.91	11.04	1.12	1.35	0.13
York Road .....	63	0.36	5.81	10.40	16.57	10.46	27.00	2.24	2.42	0.26
Burnley :										
Bank Hall Hosp. ....	89	0.54	5.66	5.00	11.20	9.02	20.20	2.37	2.68	0.00
Marsden Rd. San. ....	104	0.43	2.65	2.68	5.76	12.37	18.08	2.50	3.32	0.00
Swindon Reserv'r .....	96	0.36	1.79	1.33	3.48	7.60	11.07	1.94	2.32	0.00
Town Hall .....	96	0.61	9.13	10.05	19.79	12.78	32.56	3.24	3.03	0.03
Halifax :										
Akroyd Park .....	89	0.15	3.19	4.00	7.34	7.17	14.48	2.04	2.60	0.10
Infirmery .....	92	0.15	2.58	3.62	6.35	7.85	14.20	2.09	2.65	0.13
Wade Street .....	93	0.28	6.35	11.50	18.13	9.36	27.46	2.83	3.19	0.13
West View Park .....	92	0.13	2.14	3.57	5.84	7.12	12.93	2.42	2.47	0.10
Hull :										
Central .....	56	0.38	3.65	9.97	14.00	12.52	26.52	3.09	2.14	0.15
Country .....	56	0.05	0.84	1.68	2.57	6.50	9.05	2.24	1.17	0.10
Suburban .....	56	0.08	0.99	2.47	3.54	4.36	7.91	1.45	0.87	0.10
Pontefract .....	53	0.20	5.38	7.83	13.41	9.34	22.75	1.63	1.79	0.20
Skipton .....	82	0.43	1.73	2.52	4.68	10.25	14.97	2.52	2.09	0.18
Castleford .....	34	0.74	9.44	11.91	22.09	7.78	29.86	2.91	1.50	0.10
Dewsbury :										
Gas Works .....	59	0.08	5.94	6.60	12.62	10.48	23.08	2.50	2.01	0.18
Municipal Build's .....	60	0.08	6.78	9.59	16.45	11.50	27.95	2.45	2.35	0.13
Ravensthorp .....	64	0.08	7.57	9.26	16.91	10.84	27.74	2.58	2.32	0.18
Whitley .....	62	0.03	3.26	2.68	5.97	10.38	16.35	1.76	1.94	0.10
Wakefield :										
Clarence Park .....	57	0.18	2.58	3.26	6.02	5.10	11.09	1.61	0.92	0.15
W.R. Rivers Bd. ....	60	0.43	5.66	13.11	19.20	9.30	28.48	2.93	1.68	0.28
Huddersfield :										
Cooper Bridge .....	63	0.05	1.40	1.61	3.06	7.06	10.12	1.84	2.12	0.46
Deighton .....	76	0.08	5.46	5.71	11.25	8.98	20.22	2.35	2.47	0.41
Rochdale :										
Town Hall .....	87	0.33	3.44	4.46	8.23	7.07	15.30	2.30	2.22	0.10
Manchester :										
Baguley .....	68	0.15	1.40	2.01	3.56	7.22	10.71	2.14	1.79	0.05
Booth Hall .....	77	0.26	2.60	4.11	6.97	8.67	15.61	2.27	2.88	0.08

# ATMOSPHERIC POLLUTION.—COMPARATIVE STATISTICS—*continued.*

Monthly Means, at various places for the Year April, 1936, to March, 1937.

In English Tons per Square Mile.

STATIONS	Rainfall, (Per Pollution Gauge). In milli- metres	Insoluble Matter			Total Insol- uble Matter	Total Soluble Matter	TOTAL SOLIDS	Included in Soluble Matter		
		Tar	Carbon- aceous other than Tar	Grit, (as Ash)				Sul- phates (SO <sub>3</sub> )	Chlo- rine (Cl)	Am- monia (NH <sub>3</sub> )
Manchester (cont.) :										
Heaton Park .....	86	0.20	2.22	3.19	5.61	7.39	13.03	2.27	2.78	0.08
Oldham Road .....	80	1.07	11.99	18.33	31.39	13.47	44.80	4.11	3.34	0.41
Phillips Park .....	81	0.51	15.12	14.69	30.32	12.67	42.97	3.60	3.67	0.28
Withington .....	67	0.20	1.89	3.52	5.61	7.52	13.11	2.07	2.12	0.08
York Place .....	79	0.77	6.12	11.63	18.52	9.38	27.90	2.50	2.75	0.08
Salford :										
Drinkwater Park .....	87	0.26	4.23	5.56	10.05	11.78	21.83	3.47	3.83	0.13
Ladywell San. ....	77	0.28	4.69	6.40	11.37	12.37	23.72	2.96	3.49	0.10
Peel Park .....	69	0.59	5.58	9.77	15.94	11.80	27.74	2.78	3.14	0.05
Rotherham :										
Oakwood Hall San .....	63	0.15	3.70	5.56	9.41	7.27	16.68	2.17	1.40	0.18
Technical College .....	58	0.31	6.30	14.41	21.02	10.20	31.21	2.65	2.07	0.18
St. Helens .....	76	0.79	7.62	14.59	23.00	15.25	38.25	2.07	2.70	0.23
Liverpool :										
Aigburth Vale .....	64	0.13	2.24	4.00	6.37	6.94	13.31	1.22	2.52	0.03
Cambridge St. ....	64	0.38	6.94	12.06	19.38	11.30	30.68	2.01	3.11	0.08
St. George's Hall .....	54	0.31	5.23	10.71	16.25	14.66	30.88	2.52	4.69	0.05
Marple .....	71	0.13	1.68	1.84	3.65	5.68	9.33	1.68	1.96	0.08
Sheffield :										
Attercliffe .....	67	0.33	7.50	13.59	21.42	9.21	30.63	2.45	2.58	0.15
Dore .....	89	0.13	1.96	2.09	4.18	5.41	9.59	1.61	1.38	0.10
Ewden Waterw'ks .....	85	0.10	1.63	1.73	3.46	6.47	9.95	1.79	1.81	0.10
Nether Green .....	82	0.13	1.50	2.70	4.33	5.35	9.69	1.50	1.58	0.13
Stocksbridge .....	87	0.15	6.07	6.96	13.18	7.78	21.04	2.30	1.68	0.13
Surrey Street .....	75	0.28	6.20	12.39	18.87	9.67	28.51	2.88	2.32	0.13
Stoke-on-Trent :										
Leek Road .....	79	0.31	4.82	6.86	11.99	6.86	18.84	2.40	1.94	0.56
Longton .....	80	0.43	6.94	10.74	18.11	7.32	25.42	1.89	3.01	0.13
Tunstall .....	77	0.26	4.16	6.89	11.31	9.54	20.81	2.45	2.24	0.10
Loughboro'—No. 1 .....	60	*	*	*	9.03	4.82	13.85	*	*	*
Loughboro'—No. 2 .....	68	*	*	*	5.58	6.86	12.44	*	*	*
Leicester :										
Humberstone .....	56	0.20	2.52	5.15	7.87	5.56	13.41	1.38	0.59	0.28
Jarvis Street .....	62	0.23	6.60	10.33	17.16	7.17	24.30	2.24	0.87	0.28
Town Hall .....	61	0.31	4.95	13.54	18.80	7.96	26.75	2.52	0.99	0.20
Wolverhampton .....	55	0.26	1.89	3.16	5.31	5.43	10.76	1.48	0.84	0.10
Walsall .....	52	0.18	1.91	2.78	4.87	6.76	11.63	1.40	1.10	0.15
Birmingham :										
Gt. Charles St. ....	60	*	*	*	34.25	11.53	45.77	*	*	*
West Heath .....	69	*	*	*	11.25	6.48	17.75	*	*	*
Bournville :										
Village .....	76	0.10	2.07	2.96	5.13	6.24	11.37	1.33	0.89	0.05
Works .....	78	0.13	2.52	3.85	6.50	6.73	13.23	1.40	0.99	0.08
Gloucester .....	64	*	*	*	6.83	6.99	13.82	*	*	*
Rothamsted .....	73	*	1.43	1.86	3.29	4.82	8.11	*	*	*
Garston, Watford .....	91	0.13	3.14	1.63	4.90	8.44	13.34	1.71	1.30	0.05
London :										
Archbishop's Park .....	60	0.38	7.37	9.84	17.59	9.76	27.37	3.67	0.97	0.33
Battersea Park .....	61	0.46	5.64	6.91	13.01	8.08	21.09	2.70	0.97	0.05
Finsbury Park .....	58	0.38	2.93	6.09	9.40	13.77	23.21	4.54	0.99	0.05
Golden Lane .....	52	0.61	2.91	5.41	8.93	13.31	22.21	3.92	1.91	0.54
Horseferry Road .....	67	0.43	7.68	19.76	27.87	12.90	40.77	3.72	1.33	0.15
Kew Observ., N. ....	60	0.20	2.14	2.75	5.09	4.85	9.95	1.43	0.64	0.10
Kew Observ., S. ....	62	0.20	2.17	2.63	5.00	5.86	10.84	1.68	0.71	0.08
Mount Street .....	68	0.43	5.33	10.48	16.24	10.43	26.67	3.06	1.40	0.15
Ravenscourt Park .....	58	0.33	2.93	6.45	9.71	8.09	17.82	2.75	0.79	0.18
S.Kensing'n(M.O.) .....	58	0.41	4.03	5.89	10.33	8.34	18.64	2.32	1.12	0.08
Southwark Park .....	57	0.26	4.72	8.44	13.42	7.06	20.48	2.58	0.79	0.18
Victoria Park .....	57	0.38	3.95	7.11	11.44	6.35	17.77	2.04	0.74	0.18
Wandsworth Com. ....	55	0.20	3.01	5.56	8.77	6.87	14.61	1.91	0.82	0.15
W. King Charles St .....	62	0.41	6.89	7.80	15.10	9.90	24.99	1.96	1.96	0.15
Cardiff .....	99	0.10	2.65	3.93	6.68	8.54	15.22	1.84	1.58	0.05
Bristol :										
Waterworks .....	80	0.28	5.15	9.61	15.04	9.92	24.96	2.40	1.35	0.10
Zoological Gdns. ....	80	0.15	2.07	3.21	5.43	6.86	12.27	1.40	0.89	0.08
Southampton .....	83	0.48	2.07	5.76	8.31	6.86	15.17	1.43	1.63	0.43
Hove : Marine Park .....	52	0.13	3.16	4.95	8.24	30.53	38.76	6.11	8.52	0.85
Godalming .....	84	0.10	0.82	0.74	1.66	5.46	7.11	1.25	0.94	0.03

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